



The practice of combat operations has shown that optical reconnaissance has received the greatest use in the conditions of Afghanistan. The ability to quickly "spot" the enemy and "give out" polar coordinates (angle, range, height) is the main advantage of these artillery weapons. Optical artillery reconnaissance was carried out with the help of a field artillery compass and rangefinders.

The experience of combat operations showed that artillery weapons functioned reliably under a high fire regime and in the difficult meteorological conditions of Afghanistan: high dustiness of the air and high temperature. However, during the operation, a number of features were revealed that significantly influenced its reliability and survivability. So, in preparation for the conduct of hostilities, it was required to subject to a thorough inspection all rockets, the transportation of which in off-road transport-loading and transport vehicles led to a violation of the integrity of jet engines. This, in turn, sometimes led to the rupture of shells in the guide package of combat vehicles during launch. Intensive operation of artillery weapons at elevated temperatures and dusty air in

in a number of cases, it was the cause of the failure of the mechanisms and components of the guns and combat vehicles of the MLRS. In particular, when firing multiple launch rocket systems, individual tightening bands of the guide packs loosened, and in the operation of the self-propelled howitzer ramming mechanisms, the fastening of parts, assemblies and devices to the hull was weakened, and there were also cases

of fluid leaks from the recoil devices of the guns. Natural and climatic conditions have left their mark on the use of optoelectronic devices. The mountainous terrain made it possible to select observation points providing line-of-sight ranges exceeding the capabilities of the instruments in terms of observation range with a slight increase in magnification. Therefore, in mountain conditions, devices with increased magnification were more effective. At the same time, a high level of solar radiation led to increased heating of the laser rangefinder housings, as a result of which their performance was impaired. Therefore, the expediency of equipping artillery units with two types of reconnaissance and surveillance devices was revealed: optical and electronic. During the combat operations of a limited contingent of Soviet troops in

Afghanistan, artillery was assigned to perform a number of tasks: artillery support for large-scale offensive operations of troops; fire support for motorized rifle (airborne) units in their areas of responsibility; protection and defense of the most important military and national economic facilities; wiring and support of columns; ensuring the exit from the battle and the withdrawal of troops after the completion of combat missions.



To solve these combat missions, either large groupings of artillery were created, or it was used by divisions and even by batteries. The main difficulty in creating an artillery group was that 20–30% of it performed the tasks of protecting objects. Therefore, artillery groups of formations and units were created with an extremely limited composition, and sometimes they were not created at all. As a result, motorized rifle units often took part in combat operations only with regular artillery.

The basis of regimental artillery groups, if they were created, were regular artillery battalions of motorized rifle

regiments. The artillery regiment of the formation formed the basis for the creation of a divisional artillery group. Most of the divisions (and sometimes batteries) from the artillery regiment were attached to motorized rifle regiments. But in any case, the jet battalion and 1-2 batteries of 152-mm self-propelled howitzers remained at the disposal of the division commander. Battalion artillery, as a rule, was distributed between companies. When operating in the mountains, the company was given a platoon of 82-mm mortars from the mortar battery of a motorized rifle battalion and a crew of portable ATGMs from the anti-tank platoon of the battalion.

Such a distribution of artillery and the creation of its groupings did not always ensure the high-quality performance of fire missions. At the same time, commanders of all levels had to reckon with the fact that in mountain conditions the main firing unit was an artillery battery, and in some cases only a fire platoon, and taking this into account, plan a fire engagement of the enemy.

The fire defeat of the enemy was planned depending on the specific conditions of the situation, the scope and type of hostilities. In large-scale offensive operations and in battles to block and comb out areas where significant rebel forces were located, it was built on three periods: fire preparation for an attack, fire support for an attack, and fire support for combat operations of troops in depth.

Artillery preparation for an attack was carried out with the aim of inflicting maximum losses on the enemy, demoralizing and reducing the resistance of his personnel, as a rule, to a depth of 4–5 km. Its duration was determined based on the volume of fire missions, the presence of artillery, and often ranged from 20 to 35 minutes. Artillery preparation of the attack was planned and carried out during one to three fire raids. At the same time, its construction could be very different. The most common was the application of three fire raids. At the same time, the first fire raid was carried out on first-line targets in the villages occupied by the rebels, on their firing points and hiding enemy groups, on command heights planned for occupation by our units. The second fire raid fell on the targets of the second and third lines of defense

the enemy, as well as on the firing points located on the middle and lower tiers of the heights. In the third fire raid, as a rule, the targets of the first fire raid were repeatedly hit.



In some cases, in the third fire raid, a combination of fire damage to the enemy was carried out with smoke from the front edge, as well as flanking enemy firing points located at dominant heights. However, smoke fire was not widely used in mountainous conditions.

Afghanistan, since when placing smoke screens, the wind speed, its direction, the condition of the mountain passes, which were the cause of the so-called "drafts", and a number of other features that led to a decrease in the effectiveness of smoke projectiles, were not calculated in detail. In separate

combat operations, for example, during the capture of the Bayramshah base area in the province of Balkh in 1985, the artillery preparation of the attack was carried out by two fire raids on the same targets. In the first fire raid with the fuse set to a delayed and high-explosive action, adobe structures were destroyed, reliably covering the enemy from the fragmentation of our ammunition. However, in view of the fact that not every 122-mm high-explosive fragmentation projectile with a high-explosive action when firing from closed firing positions was able to penetrate and, moreover, destroy a duval, fortress or other adobe structure, an element of enemy deception was introduced into the structure of fire training. A tactical pause lasting 15-20 minutes was appointed, after which a second fire attack on the same targets began. In the second fire raid, high-fragmentation projectiles were widely used, which had a large damaging factor in open manpower and fire weapons. Such artillery preparation turned out to be much more effective and often led to the complete demoralization of the enemy and the destruction of his defensive structures.

If the conditions of the situation and the terrain allowed, during the period of artillery preparation for the attack, direct-fire guns were used. So, during the battle for the city of Khanabad (Kunduz province) in May 1986, a battery of 152-mm self-propelled howitzers was launched for direct fire at a commanding height, which, overlay with artillery that performed tasks from closed positions, suppressed several targets specially designated for it. The advantage of direct fire was also determined by the fact that it could also be conducted during the period of aviation training without the risk of hitting its aircraft and helicopters by artillery fire. Air preparation,

as a rule, preceded the last fire raid of the artillery preparation for the attack and

carried out against targets located in the enemy's base area at a depth of 5-7 km from the line of contact between the

parties. Artillery support for the attack was carried out, as a rule, by the method of single sequential concentration of fire and concentrated fire in combination with fire at individual targets. There were cases of a combination of types of fire and the use of fire that was not characteristic of this period of fire engagement of the enemy. Thus, during the conduct of hostilities in the Takhar region (Parvan province), in order to prevent the enemy from leaving the blocked gorge into the mountains, stationary barrage fire was used at three lines (300–650 m each). For this, three groups of artillery were assigned, which performed tasks with a two-hour methodical fire with a frequency of one shot every 3 minutes. As a result of setting barrage fire, the enemy, leaving the "block", first fell into a minefield, and then under fire from the blocking unit and was completely destroyed. Of particular interest is the artillery support of the attack carried out in the province of Baghlan in November 1985 during the attack on the kishlak zone. It was planned by the method of successive concentration of fire on a front of 1.5 km to a depth of 3 km. The boundaries had a rectilinear outline, corresponding to the configuration of the kishlak quarters. Taking into account that the fire on adobe structures from closed firing positions was ineffective, direct fire from a division of 152-mm self-propelled howitzers was "imposed" on each line of the PSO. These guns began the destruction of adobe structures at each line of the PSO after the transfer of artillery fire, firing from closed firing positions, to the next line. The movement of artillery of the direct fire group from one line to another was carried out by battery in jumps of 100–150 m following the motorized rifle units participating in the attack. As a result of such a complex fire engagement, the kishlak zone was captured practically without fire opposition from the enemy.



Sometimes during the conduct of hostilities in the villages and the "green zone" during the period of artillery support for the attack, there were cases of the use of a barrage of fire. At the same time, high-intensity fire was fired only at the main lines. Thus, during the offensive in the Charikar Valley (Parvan province) in November 1984, fire support for the attack of Soviet and Afghan troops was carried out by a single fire shaft, the boundaries of which were assigned through 200–250 m in a densely overgrown zone and through 400–600 m in open areas. . The total depth of fire damage to the enemy by this method was 2 km. To indicate the direction of movement of the attacking troops, the main (third) gun of each battery fired at the lines with smoke ammunition. Shooting at the lines began with volleys of batteries and continued with rapid fire until a command (signal) was received to transfer fire. If the enemy continued to resist on one of the lines (sections), then the spotter officer, at the command of the battalion (company) commander, concentrated fire on the section and conducted it until the enemy was completely suppressed.

Mobile types of combat, high maneuverability of the actions of enemy groups determined the need for a quick transition from artillery support of an attack to artillery support.

escort of advancing troops, which was most often carried out by the method of concentrated fire against previously known and additionally reconnoitered targets throughout the entire depth of combat missions. Its effectiveness largely depended on the ability to maneuver fire and artillery units, which, given the lack of roads and the widespread use of mines by the enemy, was an extremely difficult task. The way out was found in the observance of the principle "I strike at my neighbor, my neighbor strikes at me", in which the maneuver of fire and subunits was carried out where it was possible.

In some cases, fire escort of troops in difficult areas of the terrain was carried out by batteries, which were specially reserved by the command for this purpose at the very beginning of the battle. In the same places where these forces could not ensure the defeat of the enemy, combat helicopters were involved.

In all cases, artillery control during the period of artillery support for the advancing troops was decentralized. As a result, the main firing unit was an artillery battery and even an artillery platoon, which were often attached to motorized rifle battalions and companies. So, during the offensive of the enemy, entrenched in the "green zone" of Kandahar province, in February 1986, each motorized rifle company was given a platoon of 82-mm mortars, and a platoon of 82-mm automatic mortars was at the disposal of the battalion commander. Mortar platoons moved in combat formations of troops at a distance of 80-150 m from the chain of advancing subunits, hitting the enemy at the direction of their commanders. In addition, to solve more extensive fire missions, each battalion was supported by a platoon of 122-mm self-propelled howitzers. Thanks to this choice of various means of destruction, fire missions were carried out successfully. Evidence of this is that during the period of artillery escort of the troops during this offensive, 16 enemy firing points were suppressed. At the same time, 9 firing points were suppressed by fire from two mortar platoons, 7 firing points by fire from a platoon of 122-mm self-propelled howitzers, and another 7 targets by fire from 122-mm self-propelled howitzers.



During certain operations and battles, artillery support was planned for the advancement of units and subunits to the base areas and covering the combat formations of troops during the march. At the same time, artillery support for the advance of troops was organized not for the purpose of combating long-range artillery, which the enemy did not have, but for the destruction of fire weapons of the rebels located in ambushes on the routes of advance of our troops. This task was assigned to the duty means and to the artillery operating as part of the column. Duty artillery batteries (divisions) located at permanent deployment points "accompanied" the movement of troops along the route of advance to the depth of the maximum reach of fire. At the same time, artillery officers were appointed in advance in the marching formations of motorized rifle battalions (companies) to immediately call and correct fire both during the advance and during the march. The actions of the spotter consisted in the fact that, having discovered a new target, he, using a working map with planned fires, called in artillery fire on the planned target closest to the enemy, subsequently transferring fire to an unplanned one. If fire on duty means to destroy ambushes

was not enough, escort artillery was involved. She, as a rule, hit the enemy with direct fire. Such a complex combination of artillery made it possible to successfully fight enemy ambushes. When performing fire support tasks for

private battles of motorized rifle and airborne (airborne assault) units in their areas of responsibility, the so-called "implementation of intelligence data", artillery battalions, batteries of 122-mm self-propelled howitzers and 120-mm self-propelled guns were most often used. These artillery units, together with the combined arms, carried out the task, which in Afghanistan was called "raid combat operations." Less often, a battery of 240-mm self-propelled mortars was involved in this type of task. However, with the advent of a

correctable mine, this type of artillery weapon became indispensable for the destruction of long-term defensive structures, fortresses, and stone blockages arranged by the enemy. Fire support for private military operations consisted, as a rule, of the following. A short fire raid lasting up to five minutes was carried out against

targets, the coordinates of which were presented in advance by air, military and artillery reconnaissance, in the zone of action of the designated reinforced combined arms unit. If after that the target remained undamaged, zeroing was used, which was carried out according to the measured deviations and by observing the signs of breaks. To achieve surprise, after one or two shots, they switched to shooting to kill. The experience of conducting combat operations in Afghanistan showed that in order to make a decision in such cases to suppress (destroy) a target, combined arms commanders needed to know the technical characteristics of artillery systems and their capabilities, as well as to have solid skills in controlling the fire of regular artillery weapons. The most frequent types of fire during this period of combat activity were concentrated fire from batteries and single fire from individual guns. Often, during the period of fire support of hostilities during

the pursuit of the enemy, the situation developed in such a way that

that it was necessary, even at the expense of surprise, to ensure maximum accuracy of artillery fire. Most often, this was due to a small blocking area and direct contact between the opposing sides, when the enemy was at a distance of 200–300 m from the combined arms units. In such cases, the obligatory rule was the removal of the aiming point in the direction of the enemy by 200 m, followed by the approach of gaps in his direction. This provided security measures in the conduct of hostilities in the immediate vicinity of the parties. When the target was observed from firing positions, a high efficiency of destruction was achieved by

firing direct fire at a distance exceeding the range of a direct shot. In such cases, the range to the target was determined using a quantum rangefinder, and in its absence, by eye using a map. At the same time, determining the range in mountainous conditions required high professional skills. With the advent of an adjustable mine for a 240-mm self-propelled mortar, this means, as the most effective, began to be used in the course of fire support for

troops. So, to hit targets of the "fortress" type, only one or two adjustable mines were required. True, an additional two or three high-explosive fragmentation mines were spent on zeroing the target. An example is the combat use of a 240-mm mortar battery in the area of responsibility of a motorized rifle regiment during the liquidation of a detachment of rebels under

the command of Ahmet Shah Masud in the Charikar Valley in June 1985. When attacking the enemy, especially fierce resistance was offered from the fortress, where dushmans concentrated significant forces, armed with two DShK machine guns - six to seven anti-tank grenade launchers and small arms. It was decided to entrust the task of destroying and destroying the resistance center to the commander of the mortar battery, Senior Lieutenant A. Beletsky. The battery commander chose his NP at the Bezymyannaya height and, using a laser range finder, determined the range to it, which was 2350 m. Having prepared the data for firing, the battery commander

fired the first sighting shot with a high-explosive fragmentation mine.

Based on its rupture, corrections were made in range and direction, taking into account the subsequent shot of a corrected mine. It took a little more than 10 minutes to destroy the fortress and demoralize the enemy in it. To achieve this result with other firepower, it would be necessary to spend much more ammunition and time. The experience of military operations has shown the feasibility of

using corrected mines not only on the plains, but also in the mountains. They made it possible with high efficiency to hit strongholds and individual firing points of the enemy, equipped in the folds of the terrain and hidden in caves. A special group of artillery tasks was the protection and

defense of the most important military and national economic facilities. As a rule, anti-tank artillery battalions of motorized rifle divisions, armed with 100-mm anti-tank guns and ATGM combat vehicles, as well as artillery battalions (batteries) of 122-mm howitzers, were used for these purposes. Combining artillery firepower with reconnaissance means, the commanders of all units sought to forestall an enemy attack.

When protecting objects, reconnaissance means of the seismic principle of operation were widely used. They were used in combination with on-duty firepower and significantly reduced the likelihood of an enemy surprise attack. So, in February 1986, in order to prevent a sudden attack on a guard outpost in the Talukan region (Takhar province), the commander of a duty fire platoon of 122-mm howitzers, Lieutenant T. Kozhbergenov, decided to deploy reconnaissance assets in an unobserved zone from an observation post. They were installed on a pack trail in the most likely place for the enemy to appear. There, at the site of the installation of reconnaissance assets, three areas of concentrated fire were planned. At one o'clock in the morning, a scout reported the approach of a small enemy caravan.

With the help of night vision devices, it was determined that the convoy included wheeled vehicles, pack animals and personnel. The platoon commander decided to destroy the column.

When the column approached the area of concentrated fire, which was planned in the narrowest place, the platoon commander gave the command to open rapid fire at three areas simultaneously. The total consumption of ammunition amounted to 12 shells. As a result of the shelling, the enemy lost two vehicles, four pack animals and six people killed. Thus, the experience of the combat use of reconnaissance assets in combination with standby assets (artillery battery or platoon) in Afghanistan has shown the promise of their use for detecting enemy columns, especially at night. A certain difficulty was the fulfillment by artillery of the tasks of escorting and

escorting columns. Usually it was carried out according to one of the options. The first option was exceptionally simple to organize. It provided for greater independence of all gun commanders in deciding to open fire. To this end, along the entire route of the expected movement of the columns, a "firing block" was put up. It included separate tanks, infantry fighting vehicles, self-propelled artillery mounts, remote from each other at a direct shot range. Rifle weapons were located between them at a distance of 300–400 m from each other. Such an arrangement along the roadway of fire weapons ensured the passage of the transport group to its destination. Artillery in this case carried out the tasks of fire destruction of the enemy, as a rule, by direct fire. The second option was more difficult. It provided for the integrated use of firepower along the entire route of movement. For this purpose, as a rule, three groups of artillery were

created. The first group advanced at the head of the column, the second - as part of the main forces and the third - at the tail of the column. As a rule, a battery of self-propelled guns was assigned to the composition of artillery groups, less often an artillery battalion. In all cases, the column provided for the presence of artillery spotters at the rate of one for 10–15 vehicles of the transport group. This distribution made it possible to correct artillery fire even in the event of a column break on the march.

When leaving the point of permanent deployment, the column was under the cover of artillery on duty until the line of their

maximum firing range. Then it was guarded by artillery group No. 2, which occupied firing positions in a predetermined area near the road. Even further along the route, fire group No. 3 was deployed in the same way. As a result, throughout the entire movement along the route, the column was under the cover of artillery, the fire of which at any moment could be called by spotters. The experience of Afghanistan has shown that the organization of the

provision of the escort of columns requires a clear interaction between the combined arms and artillery commanders, a well-established communication system, and solid skills in organizing fire control on the part of artillery spotters. Artillery support for the exit of subunits from the battle and their withdrawal after the

completion of the combat mission was an exceptionally difficult task. This was explained by the fact that with the beginning of the withdrawal of Soviet troops, the enemy quickly occupied the heights left and opened aimed fire after the units, inflicting significant losses on them. This was especially true during the exit from the battle and the withdrawal of tactical airborne assault forces.

The way out was found in the clear planning of fire support for the withdrawal of troops. It consisted in the fact that prior to the descent of the units, fire was carried out on the reverse and flank slopes occupied by the enemy, as well as on nearby heights and paths. After that, with the beginning of the withdrawal of motorized riflemen or paratroopers, fire strikes were first delivered on the tops of the mountains, and then gradually descended in leaps of 150–200 m. zones of effective fire of small arms of the enemy at a distance of up to 3 km. The effectiveness of artillery fire largely depended on the quality of preparation of firing and fire control, which in Afghanistan had a number of features. In this case, the most important

role has always been assigned to artillery reconnaissance. In preparation for and during combat operations, artillery reconnaissance was carried out by special reconnaissance and fire correction groups headed by artillery officers. Within these groups,

in addition to the spotter officer, there were one or two reconnaissance officers and a radiotelephonist. The reconnaissance and fire correction groups created forward (side) observation posts, which were deployed in combat formations of troops or on the dominant heights of the terrain. The number of NPs was determined, as a rule, by the number of motorized rifle companies (separately operating platoons) and could exceed the number of artillery units supporting them. The effectiveness of reconnaissance was significantly increased by combining artillery, air defense and motorized rifle subunits into a single system, in which each reconnaissance conducted reconnaissance of targets in a specific sector (band), overlapping and duplicating each other.

Combat practice has shown that in the conditions of the mountains, optical reconnaissance of targets was the most effective. Sound and radar reconnaissance in the mountains have not found wide application. At the same time, they were successfully used in operations in mountain valleys, deserts and "green zones". In

the mountains, determining the coordinates of reconnaissance targets caused great difficulty. Practice has shown that massive rangefinders, and even more so control vehicles in mountainous conditions, were used extremely rarely. Preference was given to light rangefinders, compass and binoculars. In some cases, the coordinates were determined by eye, using landmarks on the ground. In this case, large-scale topographic maps, marked photoplates and planned aerial photographs at a scale of 1:40,000 were used.

The conditions of the terrain in Afghanistan often required a special approach to the selection of artillery firing positions and the placement of artillery systems on them. If on the flat terrain in this regard there were practically no problems, then in the mountains the lack of flat areas necessary for the placement of guns and combat vehicles of the MLRS was acute. This led to the fact that firing platoons of cannon and rocket artillery were often placed at reduced distances (intervals). In some cases, only one combat vehicle could be placed at the firing position. Having made a volley, she quickly left for reloading, and another took her place. Thus, the shooting was carried out until the completion of the fire mission or the achievement of the required degree of target destruction.

Another feature that significantly influenced the placement of the battle formation was the need to fire in different directions, often with large reversals not only in front of the front, but also in the rear of their troops. Such conditions made it necessary to look for new ways and methods for performing fire missions with large reversals from the main directions. The practice of the actions of the artillerymen

of one of the regiments showed that in some cases it is advisable to shift the base of the guns relative to the main direction to the left. This made it possible, with the turret of a self-propelled 152-mm howitzer turned to the left relative to the chassis of the vehicle, and the consumption of 12 shells in the carousel, without turning the barrel, to get ammunition from the lower ammo rack. As a result, the rate of fire did not decrease. To ensure a much larger angle of fire, the place of the car of the senior officer of the battery was chosen 100 m to the right in front of the first gun. This made it possible to perform fire missions with large reversals of the guns from the main direction, and also, importantly, to use the machine's sight if necessary in

as a target point.

Orientation of guns and sights in self-propelled artillery batteries using gyrocompasses became widely practiced in the course of hostilities. Combat practice has shown that if you accurately set the angle of preliminary orientation, then it was possible, a few minutes after the start of work on the gyrocompass, to determine the directional angle of the axis of the machine. In this case, it was only necessary to take into account the magnitude of the convergence of the meridians in the given area.

In some cases, a method was used to orient the guns in batteries in two given directions of fire at once. At the same time, a parallel fan was first built in one directional direction, and then in another. The aiming point was chosen in each direction. Usually these were sharply distinguished ridges of rocks with a clear contour. When firing, gunners easily found them and made fewer mistakes. However, in the morning hours, especially in winter and autumn, when fog often covered the mountains, the sight of the car of the senior officer of the battery remained a spare aiming point.

Combat experience showed that the linear arrangement of guns in a firing position in the mountains was extremely rare. Therefore, in the course of military operations in mountainous conditions, the battle formation was more often built in a ledge. IN

in such cases, the base of the guns was shifted in relation to the directional angle of the main direction, and the car of the senior battery officer was to the left ahead, 200 m from the sixth gun. In this way, the firing angle of the battery was close to circular, and the sighting device served as an aiming point. The battery could fire in five directions, including the main one. As a result, the effectiveness of the use of guns for the purpose of self-defense of firing positions increased, which was extremely important in the conditions of the war in Afghanistan.

In the conditions of the mountains, topographic and geodetic binding of firing positions and artillery command and observation posts was no less difficult. Indeed, even the slightest inaccuracy in the calculations significantly reduced the effectiveness of fire and made it difficult for artillery to interact with motorized rifle units and aircraft. In the course of hostilities, there were cases when, due to an error in determining the coordinates, artillery fire was delivered away from the enemy, and sometimes even at the locations of friendly troops.

The main reason for this phenomenon was that the topographic and geodetic preparation of artillery fire was carried out in the conditions of the almost complete absence of the state reference geodetic network in most of Afghanistan. Thus, not a single geodetic point was established along the Herat-Farah route, 200 km long. In addition, there was a constant lack of reliable contour points on the ground. Their linear density, estimated from the map, was one point per 20–30 km or more. Therefore, the main way to determine the coordinates of artillery firing positions on

the ground was their topographic location on the map using navigation equipment or other devices relative to the contour points of the terrain. At the same time, as practice has shown, the magnitude of errors in navigation equipment in determining coordinates in the mountains (at an inclination angle of 10–15 °) was almost 10 times higher than the magnitude of errors in flat terrain. This often did not provide the definition of installations for firing in a full way.

preparation.

A very difficult task in the conditions of Afghanistan was the meteorological preparation of artillery firing. The main sources of obtaining meteorological data in the interests of artillery were the meteorological stations of units, non-standard meteorological posts

artillery battalions and meteorological posts of jet batteries. These forces were equipped with artillery ballistic stations - one per division, a landing meteorological kit and wind guns. These forces and means did not always cope with the task. Rapid and frequent changes in weather conditions required data to be determined twice as often as under normal conditions, at least every 30 minutes. In this case, it was necessary to take into account the location of weather stations and artillery firing positions. Combat practice has shown that in order to obtain real weather data, it was necessary that the weather station and artillery firing positions were not only at the same height, but also were equally open to the wind, which was almost impossible to achieve in the mountains in some cases. As a result, the "weight" of errors in meteorological preparation when firing at medium and close to maximum ranges reached 30–35% or more of the total error in determining installations for firing to kill. In order to reduce the impact of these errors, in the second half of the 1980s, an attempt

was made to systematize the meteorological situation by region. The daily values of meteorological elements obtained over several years were summarized in graphs that were used in determining the design settings for firing artillery located at permanent guard posts.

The firing of artillery in Afghanistan required careful ballistic preparation, for which all the necessary technical means were available. The difficulty lay in its organization. This was due to the fact that about half of the artillery subunits of cannon and howitzer artillery, by battery and even by platoon, were in positions (outposts) that were significantly distant from each other. Replenishment of their ammunition, as well as other units located in combat areas, was not always carried out through regimental (divisional) warehouses. Basically, ammunition was supplied directly from the convoys transporting from army and central warehouses and bases. Under such conditions, the organized distribution of ammunition into batches seemed very difficult. In full, this task was solved, as a rule, when at least an artillery battalion was involved in combat operations. Only in this case was

sorting charges by batches, and sometimes by weight signs. The distribution of ammunition among the guns in the future took place depending on the degree of wear of the barrel and other features of each system. This required considerable time and effort for almost the entire calculation.

Difficulties in artillery reconnaissance, topographic and geodetic referencing and meteorological preparation made it difficult to determine installations for firing at various targets. Added to this was the fact that the presence of dominant heights, steep slopes, narrow gorges, significant "dead" spaces and fields of invisibility forced the widespread use of mortar fire, which required more careful calculations than firing with a slight excess of the trajectory over the aiming line. And finally, the frequent cases of correcting fire not from forward positions, as is customary on flat terrain, but from the flank or even from the rear of the main grouping of advancing troops made it difficult to determine the accuracy of firing installations.

Shooting settings were determined by zeroing in or as a result of an abbreviated and complete preparation of the initial data. An analysis of the hostilities showed that the sighting of targets was mainly a forced method. It was used when it was necessary to ensure maximum accuracy of fire, even at the expense of surprise. As a rule, this took place during operations to block the kishlak zone, when defeating groups of rebels located in close proximity to their troops, when performing tasks by a spotter officer who did not have a rangefinder on his OP, and in a number of other cases. When shooting in mountainous conditions, installations for opening fire were determined by a point remote from the target in the direction opposite to their troops by 200-400 m, with strict observance of security

measures. In some cases, the sighting was started with smoke shells. Full training, which required careful consideration of all firing conditions, a significant expenditure of time and effort, reduced the probability of defeating friendly troops to a minimum.

At the same time, due to the complexity of taking into account weather conditions, the capabilities of the systems in terms of firing range with full preparation were reduced by more than half.

Combat operations in Afghanistan brought to the fore the problem of organizing interaction in mountainous areas, especially between artillery, aviation and motorized rifle units and subunits. The interaction of forces and means of fire destruction was carried out in the interests of achieving the required efficiency, timely use of the results of destruction by our units (subunits) and was organized throughout the entire depth of the tactical task along lines, time, tasks and methods for their implementation. It was most fully detailed to the depth of the immediate task. At the same time, the main attention was paid to coordinating artillery fire and air strikes with the actions of combined arms units and subunits. Instructions on the main issues of interaction were worked out in advance in

the course of setting tasks for units, as a rule, on a layout of the area. Particular attention was paid to the precise coordination of actions between artillery and aviation in three-dimensional space: along the front, depth and height. In the course of hostilities, those commanders made a serious

mistake who used fire weapons selectively, that is, they gave priority to one or the other. This led to the fact that at certain moments of the battle, artillery could not participate in fire damage due to security measures, since the trajectory of its fire passed in the zone of action of combat helicopters. In turn, army aviation, due to inconsistency with the actions of artillery, could not perform high-quality fire missions on the battlefield.

The experience of combat operations has shown that only the complex use of firepower was capable of producing positive results. For example, during the capture of a base center in the Khostva Faring region in Baghlan province in February 1985, the interaction of firepower was organized in such a way that artillery fired at targets at odd hours, and aircraft at even hours. During artillery fire, helicopters were on the flanks of the combat area in readiness to strike at suitable (withdrawing) rebel groups and targets deep in the base area. At the same time, practice has shown that the designation of aviation objects in the area of targets hit by artillery fire is inappropriate due to their smoke. This inevitably led to a decrease in the effectiveness of air strikes.

Issues of interaction with aviation in the course of firing artillery allocated for direct fire deserve attention. At the time of direct fire artillery firing at the rebels' fire weapons located at the command heights and in the kishlak zone, aviation was performing its tasks in depth. In these cases, an air strike, as a rule, preceded the last artillery fire raid and during the period of fire preparation for an attack on targets located in enemy base centers at a distance of 5–7 km from the line of contact between the parties. When performing fire missions by aviation, artillery allocated for direct fire did not stop firing. Due to this, the degree of fire destruction of enemy objects (targets) increased. At the same time, the artillery, which was in closed firing positions, ceased fire at the time of the aircraft overflight and opened it again only after combat aircraft and helicopters left the areas of fired targets.

Interaction between artillery and combined arms commanders was ensured by a common understanding of combat missions, methods and procedures for their implementation, joint deployment of command and command and observation posts and constant communication between them, the appointment of common signals and landmarks. In the mountainous conditions of Afghanistan, in order to maintain continuous interaction during the battle, the observation posts of the commanders of artillery groups were located together with the observation posts of the commanders of motorized rifle regiments, and the KNP of commanders of divisions (batteries) assigned to support motorized rifle battalions (companies), together with the KNP of their commanders.

For the period of hostilities, each motorized rifle (reconnaissance) company was assigned an artillery officer, whose main task was to correct and control fire in the interests of the company. Such an order not only ensured the maintenance of continuous interaction between artillery and combined arms units and subunits, but also made it possible to create a redundant circuit for transmitting signals to shift fire during artillery support of an attack, which were transmitted simultaneously in two directions: company commander - spotter officer - division commander - PAG commander, duplicating the main command chain: company commander -

battalion commander - motorized rifle regiment commander - PAG

commander. The complexity of the tasks of the combat use of artillery required comprehensive thorough training of commanders, staffs and troops, the organization and implementation of which had a number of features in comparison with the training carried out in peacetime. This was due to the frequent involvement of artillery units and units to solve various combat missions. So, in one of the formations of the 40th Army, artillery subunits of the units were involved 8-10 times in 1985 alone to participate in hostilities lasting from 5 to 20 days. With such a high combat employment of artillery subunits and

units, it was very difficult to plan and carry out the training of their personnel for training periods. Therefore, the so-called "model week" was introduced in Afghanistan. The main activities of the typical week made it possible to carry out phased intensive training of units, each specialist individually, as well as weapons, military equipment and property for the upcoming hostilities.

In a typical week, the first day was devoted to technical training, and the second day to special training (single, as part of the crew and crew, as part of a platoon). On the third day, tactical battery exercises were held. The fourth day was devoted to political and medical preparation. On the fifth day, fire training from small arms for privates and sergeants and command training for officers were planned. The entire sixth day was spent on control exercises in shooting and fire control of the division. The seventh day was provided for washing and rest of the personnel.

Subsequently, preparations for hostilities began to be planned for a period of 10–12 days. This planning was not accidental. Practice has shown that units were often withdrawn from a typical week and received a combat mission. Therefore, it was important to provide the units with at least three days of a typical week in order to carry out priority measures in preparation for entering combat operations. Particular attention in the training of artillery

officers was given to the improvement of their special knowledge and skills. WITH

For this purpose, it was practiced to conduct a comprehensive lesson on the system of seven points. Its essence was that the artillery officer, moving from one training point to another, could improve his skills in working with instruments, in making the necessary calculations for firing, fulfill the established standards, as well as the control fire task on imitation means.

Combat experience has shown the need for maximum approximation of training tasks to the conditions of combat reality. This required choosing terrain for rifle artillery ranges similar to combat areas and creating a target environment in accordance with enemy tactics. Thus, the rifle artillery range for the artillery units of the unit stationed in the Kabul region was equipped in accordance with the terrain of the Panjshir Gorge, and the unit stationed in the province of Baghlan, in relation to the features of the desert area. The created conditions allowed firing leaders to use not only real maps of the upcoming combat area, but also photographic tablets in order to develop trainees' skills in determining the scale of aerial photographs, drawing a target on a tablet and taking rectangular coordinates from it to complete a fire mission.

Practice has shown that such a system of planning and organization of combat training contributed to an increase in the professional training of personnel and commanders of artillery units and subunits. The training of the personnel

of outposts (posts) and, in general, their training was carried out according to the generally accepted methodology, but due to the peculiarities of combat duty, there were some differences. So, the basis for the training of artillery units of outposts (posts) was the principle of a "typical month", which consisted of four stages: in the first week, single training was carried out, in the second - training as part of the calculation, in the third - training as part of a platoon and in the fourth - preparation of outposts as part of a battery (platoon).

At posts (outposts), as a rule, three-shift duty was organized. Each shift was on duty for four hours. This created certain difficulties in organizing and conducting classes. That's why

the level of training of personnel at outposts (posts) depended on personal preparedness, adherence to principles, and sometimes on the consciousness of the commander of the outpost.

Commander training with the chiefs of outposts (posts) took place monthly by the collection method at the unit (connection). Its duration did not exceed 3–5 days. At these gatherings, not only issues of a special nature were worked out, but also economic and administrative provisions were brought to the attention of officers in order to instill independence in economic activities and acquire the legal foundations for working with privates and sergeants.

composition.

Thus, the participation of artillery in the combat operations of the Soviet troops in the Republic of Afghanistan confirmed its high role in performing fire missions in combined arms combat. At the same time, the fighting revealed the weaknesses in the training of ground artillery and equipment specialists in mountainous conditions, especially in the initial period of the Afghan war. The fighting in Afghanistan made it possible to outline the prospects for the development of domestic artillery in the difficult conditions of the mountain theater of operations.

Behind tank armor

The motorized rifle formations of the limited contingent of Soviet troops included tank units. However, the nature of the hostilities of the opposition armed formations and the terrain significantly limited the ability of the Soviet command to use them during operations. The fighting involved mainly tank units. They were attached to motorized rifle (air assault) battalions for reinforcement and operated as part of tank platoons, and sometimes tank companies. The main tactical unit was the tank battalion. Its organizational and staffing

structure was no different from the units stationed in the internal military districts. The tank battalion consisted of command, combat units and support units. The command of the battalion included the commander, chief of staff and deputies for political affairs and weapons. The combat units included three tank companies. Each company had three tank platoons and a company commander's tank. There were three tanks in a tank platoon. Thus, in each company there were 10 tanks, and in the battalion, taking into account the tank of the battalion commander, there were 31 combat vehicles. The support units of the tank battalion included a communications platoon, a medical center and a support platoon. Tank units were armed with medium tanks T-55 and T-62. The T-55 tank entered service with the Soviet troops in the second half of the 1950s, and the

T-62 in the early 1960s. Both combat vehicles had high combat capabilities. The T-55 tank had a 100-mm rifled, and the T-62 tank had a 115-mm smoothbore gun with high ballistic qualities and a high rate of fire. In addition to the main type of weapon, these types of combat vehicles had one coaxial anti-aircraft machine gun each.

Fire from a tank gun was fired to destroy or suppress targets located in duvals, caves and behind other types of shelters. A machine gun coaxial with a cannon was used against openly located targets. Fire from it was most effective at ranges up to one kilometer. Participants in the war in Afghanistan

note that when a tank was blown up, the coaxial machine gun in many cases was a remote weapon, with the help of which the crew protected themselves and the damaged vehicle from the enemy from behind cover until reinforcements or a repair unit approached.

At the same time, the tanks were not without some shortcomings. Due to the limited angle of elevation of the tank gun and the machine gun coaxial with it, they could not fire at the enemy located at altitudes of more than 30 degrees relative to the location of the combat vehicle. Knowing this feature, the dushmans sought to equip positions at heights that excluded their defeat by fire from tank weapons.

An anti-aircraft machine gun was used to combat enemy fire weapons located on heights. However, due to the fact that the loader fired from it from an open hatch, the shooter was highly vulnerable to enemy sniper fire. For this reason alone, the use of an anti-aircraft machine gun in combat was limited. In many cases, shooting was carried out only to provide a psychological impact on the enemy. Initially, the ammunition for the tank

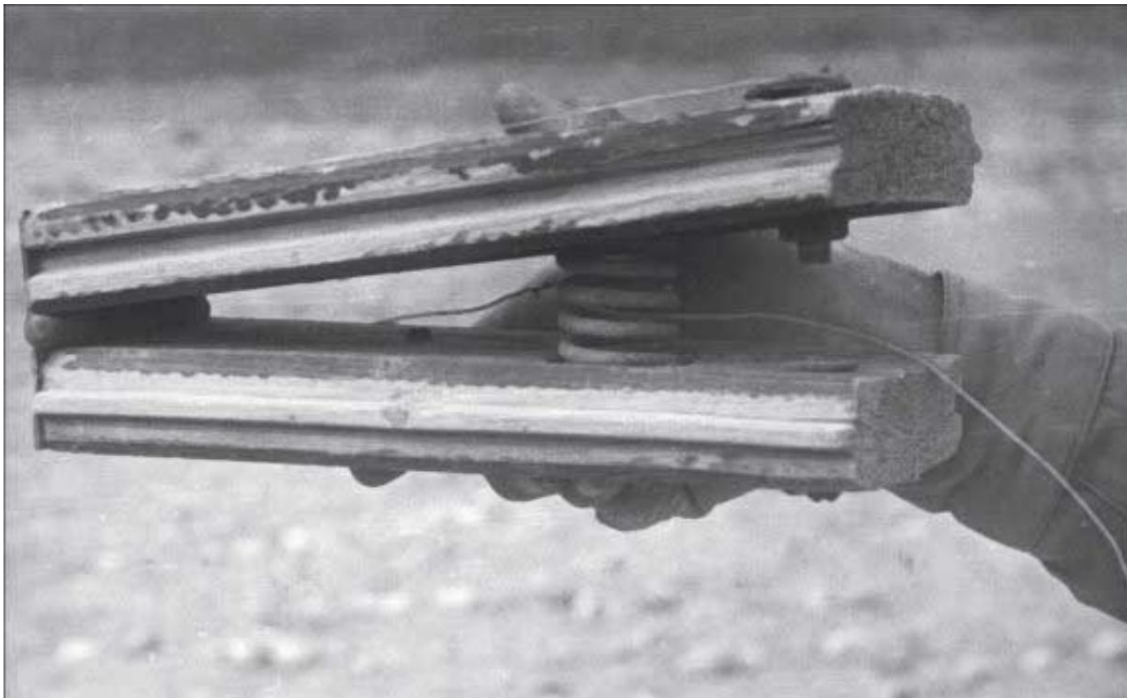
gun consisted of armor-piercing sub-caliber, cumulative and high-explosive fragmentation shells. But due to the fact that the enemy did not have armored vehicles, the ammunition load was subsequently revised. It began to consist only of high-explosive fragmentation shells. These projectiles, when the fuse was set to a fragmentation action, were effectively used to destroy manpower, enemy fire weapons located in light shelters. If it is necessary to destroy targets located behind a duval-type shelter with a mud wall thickness of not more than 30 cm, the projectile fuse was set to high-explosive action. In this case, the projectile pierced the barrier and exploded outside it, hitting the crews of fire weapons with shrapnel. The presence of weapons stabilizers on the tanks, advanced fire control devices provided the crew with good observation on

the battlefield, aiming accuracy, and high efficiency of firing from a place and on the move. The crew of the tank consisted of a commander, gunner, driver mechanic and loader. These individuals were armed with

Makarov pistols, Kalashnikov assault rifle, hand fragmentation grenades and flares. Small arms were a personal means of defense in close combat. The Kalashnikov assault rifle proved to be the most effective type of weapon in the conditions of Afghanistan. Therefore, the crew members, along with a pistol, were armed with automatic weapons. The uniform of tankers in Afghanistan was simple and

comfortable for tank operations. Strict rules for its observance were not adhered to. Everything depended on the air temperature. According to Lieutenant Colonel S.A. Amelichkin, a direct participant in the hostilities in Afghanistan, the equipment of the tankers in all cases was such that it did not hinder movement in the tank, did not interfere with leaving it in case of damage to the combat vehicle. The high combat and operational capabilities of the T-55 and T-62 tanks

allowed tank units, together with motorized rifles, to successfully operate in blocking and combing the area, escorting columns, protecting places of permanent deployment of units, airfields, bridges, passes, tunnels and other important objects.



When blocking the enemy, tanks were moved to the designated areas, as a rule, as part of motorized rifle subunits. In order to ensure the secrecy of the event and

to achieve surprise when performing a combat mission, the advance was carried out in conditions of limited visibility at night or at dawn. There were also cases when tank platoons went out to block on their own, following a motorized rifle unit. Most often this happened in the summer, when a large cloud of dust formed behind the tank during its movement, allowing the enemy to accurately determine the advance of Soviet troops into the area of \u200b\u200bupcoming operations. Therefore, the separate exit of motorized rifle and tank units to a greater extent contributed to the surprise of the start of hostilities.

With access to the area, the tanks occupied firing positions, reliably blocking all routes of the enemy's exit from the blockaded area. The gaps between tanks ranged from 200 to 300 meters, and between tank platoons - 600-800 meters or more. In all cases, they were covered by fire from small arms, mortars and artillery.

The control of a tank unit was carried out by its commander from the command and observation post of a motorized rifle battalion or one of the motorized rifle companies. This ensured close interaction between tankers and motorized riflemen, and their timely response to any changes in the situation. The second, no less important

task, which was solved by tankers together with motorized riflemen, was combing the area in order to defeat the enemy who was there. The options for combing were the most diverse and depended on the expected composition of the enemy in the area, the conditions of the terrain and the support of the local population. At the same time, attached tanks covered the motorized riflemen with their armor, and fire from cannons and machine guns ensured the defeat of various targets. So, in May 1984, when

combing the area in the province of Helmand, a tank company was attached to the parachute battalion, commanded by Lieutenant Colonel V. Romanov. By order of the battalion commander, tank platoons led the battalion's columns, which advanced along two parallel routes. Ahead of the tanks were sapper squads. Their actions were covered by paratroopers located on tank armor. The sappers checked the routes for the presence of mines. Upon detection

the enemy, he was suppressed by the fire of tanks, and, if necessary, parachute units. Thanks to the effective

use of forces and means, the battalion commander successfully completed the combat mission assigned to him. Within three days the area was cleared of the enemy. As a result of the fighting, a large amount of small arms and ammunition was captured. Regular and attached units had no losses in personnel and military equipment, despite the fact that each of the companies was fired upon by the enemy more than ten times, and up to forty shots from RPGs were fired at tanks. When combing a large settlement for

reliable blocking, the tanks attached to the motorized rifle unit could operate in the first ring of encirclement, which was created at a distance of 2-3 km from the outskirts, or in the second ring, located directly at the settlement. In all cases, the places for the firing positions of tanks were chosen in such a way as to ensure continuous observation of the area of responsibility, fire interdiction of the enemy's advance from different directions, and fire interaction between tanks and subunits. Such places, as experience shows, were crossroads, squares, gardens, valleys.



To destroy the enemy, entrenched in fortresses and other strong structures, tank platoons were used as part of assault groups, which were created on the basis of motorized rifle platoons, reinforced by flamethrower crews and sapper squads. In addition, artillery spotters and sappers were part of the assault groups.

When advancing to the object of assault, tanks with fire from cannons and machine guns from long distances suppressed enemy firing points and provided armor cover for the infantry that followed them on foot. If necessary, during the battle, tanks could also be used to destroy some buildings and evacuate the wounded and damaged equipment.

The successful solution of the task of combing and destroying the enemy largely depended on the achievement of surprise. In this case, the enemy lost the initiative, absent-mindedness and panic began in his ranks. Experience shows that in order to achieve surprise, commanders used various methods of military cunning. So, in the course of combing a section of the area on the path of a motorized rifle battalion, they came across a fortress, which was an architectural monument and was under the protection of UNESCO. The enemy rightly believed that there would be no cannon fire on the monument, and the bullets got stuck in the ten-meter thickness of the walls. In addition, on the one hand, the fortress was reliably covered by a rock, and on the other, by a moat filled with water. Only through two bridges it was possible to break into the fortress, but they were also raised. In such a difficult situation,

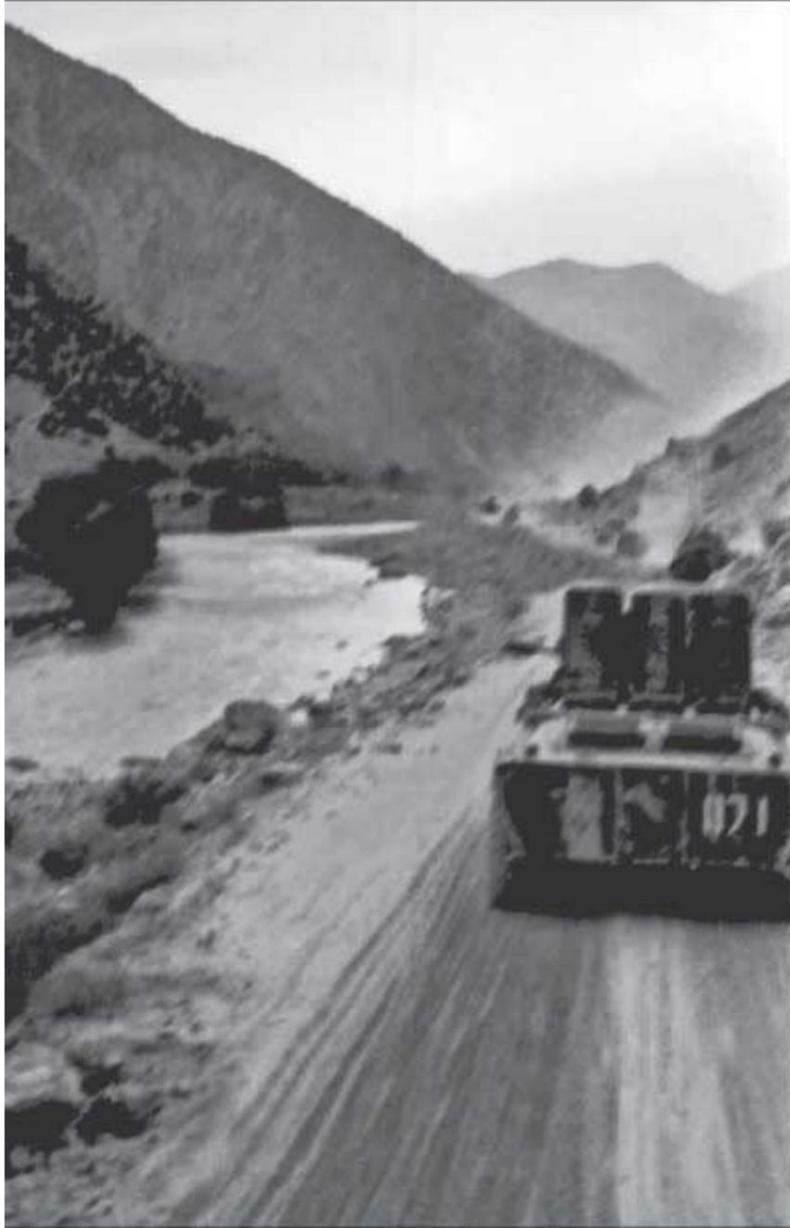
it was decided by cunning to force the enemy to lower the bridge. For this purpose, an imitation of damage to the tank was carried out, which the spooks decided to capture as a trophy. As soon as the bridge was lowered, ensign Yu. Aikin, who was in the "padded" tank, destroyed the lifting mechanism with a shot from a cannon. With a united attack on the bridge, motorized riflemen broke into the fortress and captured it.

During the fighting in Afghanistan, tank units were also involved in the protection of communications and escort of motorcades. When protecting the most important sections of communications, motorized rifle formations allocated in

outposts, reinforced by tank platoons. Tanks occupied firing positions based on the probable directions of enemy operations and terrain conditions. Firing positions were chosen outside the zones of possible collapses, rockfalls, landslides and floods. In the platoon strong point, spare firing positions were also equipped, and for the crews - dugouts or covered slots. Structures in the mountains were erected, as a rule, of a semi-buried or bulk type, with their embankment made of stones or bags filled with earth. At the approaches to the firing positions, signal mines, minefields and various wire obstacles (MZIP, spiral, net, shutter) were installed. All engineering barriers were covered by tank and small arms fire. The fire system of the tank unit, which was part of the outpost, was built on the basis of the importance of directions

and was combined with artillery and small arms fire. In some cases, it was planned to use tanks as mobile firing points. At the same time, he determined the main and additional directions, and within each direction, additional sectors of fire.

With skillful organization, the use of tanks at outposts was very effective. Thus, in the spring of 1982, in the spring of 1982, in the spring of 1982, the actions of the rebels sharply intensified in the area of operations of outpost No. 3, located on the northeastern outskirts of Kandahar, who constantly fired at columns from ambushes. To prevent the attack of dushmans, it was decided to strengthen the outpost with a tank platoon of senior lieutenant G.A. Sorokin.



Upon arrival at the outpost, the tanks settled in the garden, and the crews prepared five firing positions for them on the northeastern outskirts of the settlement. With the receipt of a signal about the advance of the column, armored personnel carriers entered the firing positions and intensified surveillance of the area in the most threatened sectors. When an enemy was identified, he was suppressed by small arms fire. If the enemy forces were significant or had heavy weapons, tanks were called in at the command of the outpost commander. During the battle, they could move from one position to another, leading

aimed fire from guns at the enemy. The presence of tanks at the outpost gave positive results. If before practically not a single column crossed a dangerous sector without losses in personnel and equipment, then in the subsequent enemy raids were carried out extremely rarely and often were inconclusive. When solving the

tasks of escorting columns, tanks were most often included in the movement support detachment or were in the column of the main covering forces. Ahead of the movement support detachment, as a rule, there was a reconnaissance and demining group, which included a tank with a KMT-5 or KMT-7 trawl. He moved ahead at a distance of 50-100 m from the group and covered himself with the fire of a motorized rifle squad. To prevent damage by fragments when a mine or landmine was detonated, the tank crew carried out trawling in the "combat" position, with closed hatches. If the width of the carriageway allowed, then trawling was carried out simultaneously by several tanks, while their movement was carried out by a ledge. To increase the reliability of mechanical demining, suspicious places were subjected to repeated passage of tanks with trawls. Being part of the main covering forces, the tanks were evenly placed throughout

the column. The tank in front served as the head patrol, on the tower of which there were several motorized riflemen as troops. The tank, following at the tail of the column, served as a technical circuit. A group of motorized riflemen was also allocated for its protection.

The options for the action of the tankers while escorting the column were very different. In all cases, when the rebels attacked, they tried to drive off the road towards the enemy and, firing from all types of tank weapons, ensure the exit of vehicles from under fire. If cars were damaged, tanks could be used to evacuate them from the battlefield, and, if necessary, to clear the roadway from damaged equipment.

The next group of tasks assigned to tank units includes the protection and defense of airfields, permanent deployment points, warehouses and other important facilities. In these cases, the tanks acted as firing points. They occupied firing positions in places where fire was provided to the maximum

range of all types of tank weapons. At the same time, fire from a cannon and machine guns was part of the general fire system of a motorized rifle unit. Often,

due to the conditions of the terrain, the firing positions of the tanks were chosen away from the stronghold of the motorized rifle unit. So, for example, the security and defense of the permanent deployment point of the unit in the suburbs of Kabul was organized. The tank platoon was located on one of the heights so that the valley was best crossfired. The gap between the stronghold of a tank platoon and a motorized rifle unit, which reached 400 m, was covered by a minefield and an electrified barrier. The observation post of the platoon commander was equipped at a height that provided a long-range view of the terrain. To maintain interaction with the commander of the motorized rifle battalion and management, a telephone connection was organized. The crew of the duty tank was always in constant readiness.

Such an arrangement of tanks and the system of their fire ensured the effective defeat of the enemy in the most threatened direction. Convinced of this, the dushmans no longer attempted to attack the outposts and the western suburbs of Kabul.



The use of tanks in Afghanistan required careful organization of combat operations on the part of commanders and staffs. So, at the end of December 1982, in front of the tank company of Captain V.P. Stuly was given the task of acting in the direction of the Panjshir Gorge, to capture the crossing over the mountain river Panjshir, to ensure the approach of motorized rifle units of the Soviet and Afghan troops in the gorge, and in the future to cover their advance into the area of the operation.

Having clarified the task received, the company commander began to assess the situation with the help of a map. Assessing the enemy, he paid special attention to possible ambush sites, the installation of mines, land mines, the availability of maneuver and retreat routes. Assessing the state and capabilities of his unit, the company commander took into account the fact that tank crews had repeatedly participated in such combat missions and had experience in clearing roads. He paid special attention to the fact that the personnel of the company were not trained to detect Italian-made plastic mines.

Due to the fact that the unit had to advance to the crossing at night, night vision devices were checked and additional training sessions were organized for mechanics and drivers to drive tanks in conditions of limited visibility. Such preparation for combat subsequently ensured the successful completion of the combat mission by the company. At the same time, the fighting in Afghanistan gave

a number of examples of a different nature, when the underestimation of the enemy by the commander of a tank unit, the possible nature of his actions, as well as insufficiently deep study of the terrain along the route of movement to the combat area led to a significant increase in the time to complete the task, and sometimes and to the loss of personnel and military equipment. This happened, for example, with a tank platoon, which acted as part of a separate motorized rifle battalion during the release of the Soviet unit in the area of Marawar, Sangam, Daridam in April 1985.

Due to the fact that the commander of a separate motorized rifle battalion did not organize engineering reconnaissance on the advance route, the tank platoon located at the head of the column was stopped at the narrowest point of the road by undermining the enemy in front of the fighting vehicle with a radio-controlled landmine. The further advance of the motorized rifle unit, which was in a hurry to help its comrades, was also stopped. It took about four hours to clear the road and resume traffic on it. All this time, the units fought in areas separated from each other, between which there were 5–7 km. During this time, in the units that repelled the onslaught of the rebels in

Daridam and Sangam, combat losses in personnel doubled and amounted to more than 50% of their regular strength.

The experience of combat operations in Afghanistan showed that success in solving the tasks assigned to tank units depended on the thorough training of commanders, crews, equipment and weapons. In the training of tank commanders, the main attention was paid to improving the skills in commanding subunits and fire in battle. Sometimes, just because of the lack of the necessary skills, the units failed. That is why, in group exercises and radio training, officers improved their skills in working with motorized riflemen, spotters, aircraft controllers, and sappers in the quick restoration of disrupted interaction and control.

The preparation of the unit was carried out within 10–12 days and ended 1–2 days before it entered combat operations. The main emphasis was placed on the training of crews and the combat coordination of platoons and companies, their clear interaction with motorized rifles and supporting artillery. Serious attention was paid to the preparation of weapons and military equipment. A thorough check of the performance of all systems, devices, mechanisms, assemblies and assemblies was carried out, as well as adjustment of control drives. The subunits created increased stocks of ammunition, water, fuels and lubricants, as well as spare parts for performing priority work on the repair of failed tanks by the crews. The training ended with a combat review, the results of which determined the readiness of the personnel to perform a combat mission.

Thus, the experience of combat operations in Afghanistan confirmed the correctness of the main provisions of the guidelines for the combat use of tank units in special conditions. However, some issues required a revision of views on the place and role of tanks in battle, mainly depending on the physical geographical and climatic conditions of the country, the variety of enemy combat methods, and the methods of performing combat missions by Soviet troops.

Winged infantry

The difficult terrain and the partisan nature of the enemy's actions predetermined the exceptionally high role of the airborne and airborne assault troops in solving various tasks of the armed struggle in Afghanistan. Already at the time of the introduction of a limited contingent of Soviet troops into this country, the airborne troops were entrusted with the responsible tasks of mastering the main airfields, large administrative centers and key facilities of the capital, ensuring their protection and blocking the nearest garrisons under the influence of the opposition. For the prompt solution of these tasks, in the period from December 28 to December 30, 1979, troops were landed on the airfields of Kabul, Bagram and Kunduz. At the same time, airborne units landed on the first two airfields, and airborne assault units landed on the third airfield.

Direct participants in the events recall that initially the landing was planned in a combined way. Its essence was that on each of the planned airfields, one reinforced paratrooper battalion was to be the first to parachute to capture the command and control towers, the runway, neutralize the guards and ensure the landing of the main forces by landing method. However, in view of the fact that the Afghan units guarding the airfields managed to be neutralized in advance and no resistance was expected from their side, the actual landing of all the landing units was carried out by the landing method.

The capture and reconnaissance groups were the first to land on the airfields. They occupied key elements of airfields, conducted reconnaissance and ensured the landing of the main forces. Subsequently, within a few hours, dozens of military transport aircraft Il-76, An-12 and An-22 landed the main forces of the airborne division on the airfields of Kabul and Bagram, and airborne divisions landed on the Kunduz airfield by helicopters Mi-6 and Mi-8 - assault brigade. Aircraft landed at intervals of 1.5-3 minutes with open hatches and, without turning off the engines, continued to move along the runway (runway) and taxiways,

the paratroopers on the move left the winged vehicles and rapidly advanced in the directions indicated in advance and to the objects. Having unloaded, the planes took off, freeing the runway and taxiing for other cars. After the landing of the main forces, the next flights were aircraft with equipment, material reserves and personnel of special units and units. During this period, air traffic control was of great difficulty. It was necessary

to achieve a minimum stay of aircraft and helicopters at airfields. However, not all crews worked well. Therefore, some aircraft had to go on a re-entry and wait in the air for the completion of the unloading of previously landed vehicles. Nevertheless, the landings at all three airfields were quick and successful, which was greatly facilitated by the numerous exercises carried out in the starting areas.



After the landing, the paratrooper units, leaving part of the forces to guard the airfields and stored materiel, began to carry out their tasks. Two airborne regiments that landed at the airport of the capital took under the protection of the Ministry of Defense and Communications, the television center, the Soviet embassy, as well as the microdistrict where Soviet specialists lived. They captured the headquarters of the army corps, the warehouses located on its territory, and the palace of Amin, where there was little resistance. In addition, they set up posts on the heights dominating the city, bridges across the river. Kabul and barriers on the main roads leading into the city. The third airborne regiment, having made a swift march from the Bagram airfield to Kabul, by the morning of December 31 concentrated in the city center at the headquarters of the army corps. A week later, this regiment was transferred to the fortress of Bala Hisar, located on the southern outskirts of Kabul, and settled down together with the Commandos brigade of the Afghan army. This fortress, towering over the southern part of the city, covered the approaches from the south and, in addition, allowed to control the center of the capital. Subsequently, this played a decisive role in suppressing the February 1980 mutiny. - assault battalions transferred to separate motorized rifle brigades. The airborne division consisted

of three regiments, as well as artillery and other special units.

Regiments - from three battalions and special forces units. Battalions - from three airborne (airborne assault) companies and units of artillery, air defense, reconnaissance. Depending on the nature of the tasks to be solved, units and subunits of the landing force were reinforced by subunits of artillery, engineering troops, and

reconnaissance. Groups were also allocated to ensure interaction with aviation.

The weapons and military equipment that were in service with the landing troops, in terms of tactical and technical characteristics, did not differ much from those that were armed with motorized rifle units and subunits.

At the same time, they had design features that took into account the specifics of the actions of the paratroopers. First of all, this refers to the dimensions of weapons and equipment and their weight, the possibility of transportation by air, landing by parachute.

Thus, the airborne combat vehicle BMD-1 is 2.2 times lighter in weight than the infantry fighting vehicle (BMP-1), 1.2 times smaller in size. She has more firepower. In addition to the 73-mm gun "Thunder", which allowed firing fragmentation and cumulative shells, three machine guns were installed on the BMD-1 (one coaxial and two course). Machine-gun armament was especially valuable during landing operations against lightly armed enemy units, with whom he most often met in the deep enemy rear.



An exceptionally important design feature of the BMD-1 was the variable ground clearance. This allowed the crew to use any, even the most insignificant shelters to camouflage the vehicle on the battlefield. To fire a shot, the BMD-1 rose above the shelter to a height of up to 30 cm, fired at the target and again fell to the ground. In addition, she could move at a minimum clearance, changing her location behind cover. This provided her

high survivability and suddenness of fire was achieved. In conditions of widespread use of mine-explosive barriers by the enemy, an important feature of the BMD-1 was the low ground pressure. There have been repeated cases when, when a BMD-1 hit a mine, it did not explode, although it always worked under another heavier combat vehicle. The airborne combat vehicle is exclusively air transportable. It could be airlifted by both military transport aircraft and helicopters. If necessary, she could parachute. To do this, on the body of the machine there were special brackets for attaching the connecting devices of parachute and parachute-rocket systems. Among other things, the BMD-1, having powerful water jets, is able to independently overcome any water obstacles at a speed of 10-12 km / h.

The small arms of the paratroopers were the same as those of the motorized riflemen, with a slight design difference. It could be folded, as a result of which its size was reduced by almost half. The shortened weapon was very convenient when landing, while in military equipment and when moving on foot.

The equipment of the paratroopers was capacious and comfortable. It included a panama hat (kepi, helmet), landing overalls (in winter - insulated landing equipment), boots (boots, sneakers), landing backpack (RD-54), body armor, machine gun (machine gun, grenade launcher), bayonet-knife, two to four grenades (F-1, RG-42), cartridges (8-10 stores and in bulk), two to four signal (illumination) cartridges, two to four signal bombs of orange smoke, an ultrashort-wave radio receiver and a radio station, a compass, a flashlight, matches, a medical kit and dry pack. At the machine gunner, the cartridges were in equipped tapes, with which he girdled, or they were carried in special metal boxes. The preparation of units for landing and the landing itself in the

conditions of Afghanistan had a number of features. This was due to the need to carefully conceal the planned air assault operations, the timing and areas of the landing. Therefore, if under normal conditions the preparation of units for landing was carried out in the initial area, then in Afghanistan

it, as a rule, took place in the points of permanent deployment of troops. Its activities depended entirely on the nature of the task ahead and included the training of personnel, weapons, equipment, as well as the creation of the necessary stocks of material and technical means.

Training of personnel was subdivided into training of commanders, staffs and training of troops. In training commanders and staffs, special attention was paid to studying the position and tactics of enemy operations, the terrain in the area of forthcoming operations, as well as the experience of earlier battles in similar conditions. It took place in the form of group exercises on maps and command and staff training with communications equipment.

The training of the personnel of the units included training in armament and on military equipment, tactical drills, reconnaissance and orientation exercises, and various drills. Much attention was paid to training in choosing, occupying and equipping a place for shooting and observation, in actions in settlements, in moving in the mountains, in practicing hand-to-hand combat techniques, in providing first aid to the wounded and evacuating them from the battlefield.



The decision for a specific battle was made on the basis of a map or aerial photographs. Due to the complexity, and often the impossibility of working on the ground, the definition of tasks for units and the organization

interactions were also carried out on a map or on a layout of the area at points of permanent deployment. Considerable attention was

paid to misleading the enemy about the timing and plans for future actions. To do this, disinformation was carried out, which made it possible to achieve surprise and thereby ensure the fulfillment of the set

small tasks.

The most important component of the preparation was the planning of upcoming actions, which was carried out on the basis of a decision. In order to ensure secrecy, a limited circle of people was involved in its development, which usually included the commander, chief of staff, head of the operational department (deputy) and one of the officers of the operational department (headquarters). On the basis of the decision, a combat order and combat orders for units were worked out. In addition, the headquarters also developed a plan for loading equipment (weapons) and landing personnel in helicopters, landing calculations and a planned table of interaction. The last document displayed the main tasks that the units had to solve, the sequence of their implementation, the procedure for using forces and means according to tasks, place, time and boundaries, the organization of communications, mutual identification, warning, target designation and guidance.

In preparation for landing and combat operations, special attention was paid to reconnaissance, which was carried out in a comprehensive manner with all available forces and means, not only of airborne formations and units, but also of the senior commander. In addition, data from undercover intelligence, Khad, Tsarandoy, Afghan units and information from local residents were used. On the basis of constantly incoming information, the previously adopted decision and tasks of the units were clarified, adjustments were made to the action plan and the use of forces and means. In order to

obtain more reliable information about the nature of the actions of the opposition forces, it was sometimes practiced to send reconnaissance groups behind enemy lines in advance. Their release into the zones located along the perimeter of the area of forthcoming operations was carried out mainly by helicopters. Sometimes they went to the indicated zones on foot.



Preparation ended with the formation of groupings at deployment points or the concentration of landing units at airfields (landing sites). After that, the troops were loaded into helicopters. Moreover, it was revealed that almost twice as many helicopters were required to drop (land) troops in the mountains than under normal conditions. The reason for this phenomenon was a significant excess above sea level of the areas of basing of helicopter units and landing units, as well as high air temperature, its rarefaction and, as a result, a drop in engine power and a decrease in the carrying capacity of helicopters. So, for example, if on a flat terrain the Mi-8 helicopter took on board 24 fully equipped paratroopers, then in the mountains it lifted no more than 12 people, and in some cases even less.



It is necessary to emphasize the peculiarity in the choice of the time or moment of landing. If, under normal conditions, paratroopers land behind enemy lines after breaking through his defenses, when the success of the advancing troops is indicated, then in Afghanistan, in order to achieve surprise, the take-off was carried out either before the start of the advance of the troops involved in the operation, or with the start of their advance from the points of deployment to the areas upcoming actions. In addition, in order to mislead the enemy about the true landing area, it was practiced to fly helicopters in the direction opposite to the actual landing area, followed by a sharp change in route and access to the specified area. Depending on the task being performed, the tactical airborne assault force was

divided from an airborne platoon to a battalion, usually reinforced by units of mortars, AGS-17 automatic grenade launchers, flamethrowers and sappers. For

transport and transport combat helicopters were allocated for the landing, and for its fire support, combat helicopters, and sometimes fighter-bomber aircraft.



The order of battle of the landing forces during the flight and during the landing usually consisted of several groups. Mi-24 combat helicopters, MiG-21bis fighter-bombers and Su-25 attack aircraft operated ahead, forming a group for suppressing enemy air defense systems and air preparation of the landing site. It was followed by Mi-8mt transport-combat helicopters, which carried a group for capturing landing sites, as well as helicopters of a target designation group. Next came the landing group, which made

up the column of the main landing forces. It consisted of Mi-6 transport helicopters and Mi-8mt transport and combat helicopters, which, as a rule, flew in pairs at intervals and distances that ensured flight safety, freedom of maneuver and ease of control. The number of helicopters in the landing group depended on their availability and the composition of the landing force. In the event of a lack of helicopters, the transfer and landing of the main landing forces were carried out in several stages, which negatively affected the results of the combat operations of the paratroopers, depriving them of surprise, simultaneity and massing.

An airborne cover group operated over the column of the main forces. This group, which consisted of two to four Mi-24V combat helicopters, was constantly in the air, maintaining contact with the landing group and the target designation group. If necessary, it suppressed the enemy's firepower that survived the strikes of the aviation training group of the landing site.

The column of the main forces was followed by combat helicopters of the landing air support group, and, if necessary, another group of suppression of enemy air defense systems. All these forces were controlled by a combat control group, which consisted of one or two Mi-9 VZPU helicopters (air control post) and the same number of An-26 aircraft. The landing flight was carried out, as a rule, at low altitudes with enveloping the terrain. Due to the absence of a front line, preliminary measures to ensure the passage of the landing force were most often not carried out.

Usually, the landing of tactical airborne assault forces was carried out by the landing method at several sites simultaneously. If it was not possible to choose a site convenient for landing, the paratroopers landed from the position of helicopters hovering above the ground at a height of 1–2 m. In this case, lightweight helicopters were used, from which the armament trusses and cargo compartment doors were removed in advance.

After landing, with the support of combat helicopters, the paratroopers of the advanced group destroyed the enemy at the landing sites and in the nearest areas, captured the dominant heights and secured themselves on them. Sappers conducted reconnaissance and neutralized mines. The scouts observed the enemy and gave updated information about the nature of his actions to the landing commander, aircraft controller and gunners.

The limited possibilities for choosing large sites in the mountains, necessary for the landing of companies and battalions, made it necessary to significantly increase the landing area, the time for units to enter the assembly area, and also to assign a greater number of forces and means to the capture group. In a number of cases, the tasks of capturing landing sites were assigned directly

on units of the main forces, for which the landing began with a battle in extremely unfavorable conditions.

So, in one of the landing operations carried out in November 1981, 70 km north of Kabul, the reconnaissance company of the paratrooper regiment under the command of senior lieutenant A.I. Lebedya made a landing at six landing sites, located at a distance of 1 to 3 km from each other. The total area of the landing area left about 30 square meters. km. Due to the fact that only one helicopter could land on each site at a time, and the second of the pair was forced to patrol while waiting for its turn, the landing took twice as long as usual. This, in turn, led to a delay in the collection of paratroopers and their exit to the indicated lines. As a result, separate groups of the enemy managed to get out of the assault.

In the course of hostilities in Afghanistan, airborne units and subunits either fought ground combined-arms offensive and defensive battles, or solved special tasks characteristic of paratroopers. In the first case, the tactics of their actions did not differ in any way from the tactics of motorized rifle troops. In the second, it entirely depended on the specifics of the combat missions being solved, the main of which were blocking, ambushes, raids, and convoy escort.

Blocking from the air was carried out in order to prevent the enemy from leaving the occupied area and the approach of reserves to it. It was carried out both in advance and directly during the operation (battle).

Early blocking

was carried out when the area of enemy concentration was precisely established, and the conditions of the terrain and the situation made it possible to covertly land the subunits. In order to achieve secrecy, landing units often landed away from the planned blocking areas, into which they then advanced on foot. So, in the course of one of the operations carried out east of Kabul in November 1985, as its participant, the chief of staff of the parachute battalion, Major S.N. Pariy, their battalion was landed at a distance of about 8 km from the planned blocking line. Due to the difficult terrain and the need to move at night, the advance took more than four hours. IN

As a result, part of the rebels left the blockade area and hid in the mountains. The blocking of

the enemy by the forces of tactical airborne assault forces simultaneously with the offensive operations of the ground troops was used when it was not possible to carry out the landing in advance, when only part of the area occupied by the enemy was subjected to combing, or when the situation suddenly developed in the course of hostilities required it. At the same time, it was more difficult to achieve the suddenness of the formation of a bloc and avoid losses in personnel, weapons and equipment.

An example of such a landing is the actions of the reconnaissance and airborne companies of the parachute regiment in the "green zone" Pagman, 15 km northwest of Kabul in February 1982. The fighting in this area began at 6 o'clock in the

morning with the advance of two regiments against the enemy, entrenched in the buildings of the "green zone". Ten minutes before that time, in the Kabul area, helicopters of the tactical airborne assault forces landed, and 12 Mi-8tv helicopters came off

from the earth.

The flight was carried out with a deep detour of the combat area from the north and took no more than 30 minutes. During this time, ground troops entered the "green zone" and began to push the enemy out of the strongholds. However, the dushmans continued to put up stubborn resistance, counting on the arrival of reserves and the possibility of retreat to the mountains.

In the period from 6.30 to 6.50 tactical airborne troops were actually landed on the eastern slopes of the mountains adjoining the "green zone" before the eyes of the enemy. As a result of this, the enemy's escape routes were cut off. Panic broke out in the Dushman camp, which the Soviet troops took advantage of. In a short time, a large detachment of oppositionists was completely defeated. The landing of tactical

airborne troops with the aim of blocking the enemy could be carried out in one or several areas at the same time. A landing in one area was practiced when the conditions of the terrain did not allow it to be carried out along the perimeter of the blocking area and when there was only one possible route of withdrawal

enemy. In this case, a high centralization of forces and means was ensured, the convenience of managing them, and comprehensive support from the senior commander. The solution of interaction issues has been greatly simplified. However, the consequence of such a landing was a significant expenditure of time, inevitable when units reached their lines on foot, unmasking due to the impossibility of hiding the landing of a large number of helicopters in one place and a high probability of enemy groups leaving the blocking area until it was completely surrounded. More effective was the method of blocking landings at several

points located along the perimeter of the enemy concentration area. However, it assumes high professional skills of helicopter pilots in navigating difficult terrain, and paratroopers in the ability to operate independently for a long time in small groups (squad, platoon) at a considerable distance from the main forces. This method was used in November 1981 when blocking a large opposition group in the "green zone" of Istalif, located 15 km southwest of

Bagram. A tactical airborne assault force, as part of a reinforced reconnaissance company of the parachute regiment, was landed at dawn in order to intercept possible routes for the enemy to leave the "green zone" in a westerly direction.

The landing was carried out in the initial area, located in the southern part of the Kabul airport. The troops landed from eight Mi-8 helicopters at the same time on six sites located at a front of about 7 km, 30 minutes before the start of operations by ground forces.

Due to the difficult terrain, helicopter crews could not immediately find suitable landing sites. Therefore, the landing of troops dragged on a little longer than it was envisaged by the plan. At the same time, the simultaneous landing of several disparate groups did not allow the enemy to determine the plan of the Soviet command and take retaliatory actions.

Within an hour, the paratroopers, having captured the landing sites, began advancing to their lines, destroying small groups of the enemy along the way. At 7 o'clock in the morning, the advancement of units to the lines

blocking has been completed. There were 250 dushmans in the trap, who could not resist the Soviet troops and were soon defeated.

Ambushes by the forces of airborne troops were arranged mainly in the deep rear of the enemy with the aim of intercepting caravans with weapons, capturing prisoners and documents. This mode of action was extremely complex and dangerous. The subunits allocated for ambushes were forced to act independently for several days at a considerable distance from the deployment points of their troops in the face of a constant threat of detection and attack from the enemy. However, high individual training allowed paratroopers in most cases to successfully solve complex combat missions.



Ambushes by airborne troops were used in almost every operation. They differed in the goals and composition of the allocated forces and means.

The most frequent were ambushes, which were arranged to intercept caravans with weapons and ammunition near the state border of Afghanistan with Pakistan and Iran. To solve this problem, each direction was assigned, as a rule,

one parachute company, reinforced with machine guns, grenade launchers and sappers. Two or three ambushes stood out from the composition of these forces, each as part of a reinforced paratrooper platoon.

Preparations for actions in ambush began with the study and analysis of intelligence data received from various sources. After that, the terrain was assessed, the ambush site was chosen, the most appropriate methods of action, the composition of the forces and means necessary to solve the combat mission, the order of their exit and return, as well as measures to deceive the enemy, were determined.

At the same time, the training of personnel, equipment and weapons was going on. Classes were held to practice hand-to-hand combat techniques, covert movement, observation, first aid to the wounded and their evacuation. In the preparation of equipment and weapons, special attention was paid to their serviceability and high combat qualities. Sights were adjusted and weapons brought to normal combat, the procedure for using night vision devices and devices for silent shooting was studied. The training of personnel was led by platoon and squad commanders. The transfer of the unit to the ambush site was carried out covertly on transport-

combat helicopters. During the flight to the ambush area, in order to mislead the enemy, several false helicopter landings were made. The last landing and landing of troops was carried out 5–8 km from the ambush site, as a rule, an hour and a half before sunset. The subsequent advance of the unit took place on foot under the cover of night with strict observance of reconnaissance and security measures. At the same time, the reconnaissance and security forces did not far away from the main forces, mutually informing each other about the situation with special light and sound signals, as well as with the help of small-sized radio stations and radio receivers. Having entered the indicated area, the subunits occupied places convenient for observation and firing, disguised themselves, and organized reconnaissance of the

enemy and the terrain. As a result of additional reconnaissance, possible routes of approach of the enemy, the maneuver of his forces and means, as well as the most convenient places for setting up barriers, including

including mines and explosives. At the same time, the routes of withdrawal, the place of assembly of units after the completion of a combat mission, the areas for landing helicopters, and the procedure for their protection and defense were specified directly on the ground.



In contrast to the ambush organized by motorized rifle subunits, a group of transport-combat (combat) helicopters was created by paratroopers as part of the combat order of the ambush. For closer interaction with helicopter pilots, air controllers with communications equipment were included in each platoon. During the unit's stay in ambush, helicopters, for the purpose of camouflage and security, were at the jump sites or in the areas where the nearest units of the Soviet troops were located in readiness number 1.

Their call was carried out by radio with a specially installed signal. With the release of a pair of helicopters in the ambush area, the commander of the ambush unit carried out control and guidance on targets through the aircraft controller. The defeat of the enemy began from a minimum distance. During

the battle, prisoners, weapons and ammunition were captured. Groups that tried to leave were intercepted by specially designated

groups that were located on probable withdrawal routes away from the main forces, and were also destroyed by fire. The order in which a combat mission was carried out in each specific case depended on the nature of the enemy's actions, the composition and state of the forces and means involved in ambush operations, and also on the conditions of the terrain.

Ambushes thus organized were highly effective. So, in July 1986, one of the parachute companies was landed and acted in ambushes in cooperation with helicopters. For actions, 35 people were allocated, who were armed with four PKM machine guns, four RPKS machine guns, ten MON-100 mines. In addition, each paratrooper had two rounds of ammunition, four hand grenades, small-sized radio stations and receivers. The group also included an aircraft controller and two sappers. Four Mi-8 helicopters were allocated for the transfer, direct support and ambush. In addition, four more Mi-24 helicopters were prepared for fire support of the ambush unit, which were at the point of permanent deployment in a high degree of combat readiness. The group took off from the base camp at 19.30 on July 21 and, using terrain folds, at a minimum altitude, making false landings every 10-15 minutes, by 20.30 landed 6 km from the intended

ambush site. After that, the helicopters moved by a detour route to the jump site, located at a distance of about 15 km from the ambush site. After landing, the company, observing reconnaissance and security measures, by 22.00 secretly went to the indicated area and organized two ambushes on the routes of the probable movement of the enemy. The company commander organized observation, determined the places for fire weapons, clarified the task for the sappers to lay mines.

At four o'clock in the morning, observers reported the appearance of a column of six vehicles moving along the road in the direction of the ambush. The cars in the convoy moved at long intervals, so their simultaneous defeat failed. Two cars got out from under the fire of the company and tried to leave. However, the helicopters called in at the beginning of the battle struck and destroyed them. By seven o'clock in the morning the task was completed. The company, hiding behind part of the forces, went to the assembly area, where helicopters had already arrived by this time. Having loaded the trophies and carried out the landing of the personnel, the unit departed for the point of permanent deployment.

The raids were mainly used to capture and destroy weapons and ammunition depots, command posts and training centers, small fortified points and enemy groups. Most often, raids were made on military depots, which were located in mountainous areas, difficult to access for ground troops. The protection of these objects consisted, as a rule, of several dozen people, armed mainly with small arms. On the outskirts of the warehouses on the dominating peaks, positions for defense and observation were equipped, mortar crews, MANPADS and DShK were deployed, round-the-clock duty was carried out, secretive from observation were mined

places.



For a raid on such a warehouse, a group of 20-40 paratroopers was assigned, armed with machine guns, knives, which had a sufficient number of hand grenades. From two to six helicopters were allocated to deliver the group to the object of the raid. With strong security

and anti-aircraft weapons, an additional two to six combat helicopters were allocated, which constituted a suppression group.

As Colonel V.A. Gorshkov, who participated in several raids, was a holder of two orders, each raid was preceded by careful preparation. The commander of the airborne battalion, the commander of the company assigned to carry out the raid, and the commanders of helicopter crews participated in the organization of hostilities. Based on maps and photographs, the terrain in the area of forthcoming operations was carefully studied, the most expedient routes and flight profile were determined, landing sites and the procedure for the group's actions after landing were outlined, and the time to complete the task was calculated. Training was conducted with the personnel on a terrain similar to the area where the warehouse was located. At the same time, during the training, special attention was paid to the speed and accuracy of the actions of helicopter crews and personnel. The time of the raid was most often chosen at noon, when the dushmans had meals, cult and religious rites were performed. Helicopters, using the folds of the terrain, secretly approached the object, as a rule, from the highlands and landed troops as close as possible to the warehouse. In the absence of landing sites, the landing was made from a hovering position. The paratroopers, quickly leaving the helicopters, advanced to the warehouse with a swift throw and covered it from all sides. At this time, if necessary, the helicopters of the suppression group attacked the object, prepared to capture it.

The capture and destruction of the object was carried out by swift attacks by ground forces. After completing the combat mission, the paratroopers concentrated in the assembly area, where transport combat helicopters were called in, subsequently delivering them to their permanent deployment points.

There were frequent cases of attracting airborne and airborne assault units and subunits to guard and escort columns with military and national economic goods. The main way to accomplish this task was to set up temporary outposts along the route of movement of the columns with the help of helicopters and deliver preemptive strikes on enemy groups prepared for an attack. So, according to the testimony of the former chief of staff of the paratrooper

regiment V.M. Varushinin, in order to protect and escort the columns on the route from Jalalabad to Birkot in June - July 1981, four airborne assault forces were landed as part of a paratrooper (airborne assault) company each. These landings landed in the mountains along the banks of the Kunar River, occupied the dominant heights and blocked the enemy's approach to the highway.

In a number of cases, airborne subunits delivered preemptive strikes against advancing enemy groups and small detachments. The actions took the form of a raid. At the same time, the unit on helicopters, using the folds of the terrain, secretly went to the rear of the enemy, quickly landed and destroyed the enemy with a swift attack. In the presence of significant enemy forces, larger-scale actions were organized and carried out, for participation in which several airborne (airborne assault) companies and combat helicopters were involved. The experience of using airborne and

airborne assault troops in Afghanistan has shown the exceptional complexity of organizing and ensuring the exit of units from combat areas after completing a combat mission. It was carried out in stages, as a rule, under the cover of combat helicopters, and even specially assigned rear guards. On the way to the assembly area, the rearguards fought on successively occupied lines. At the same time, special attention was paid to the identification and destruction of enemy air defense systems, which were especially dangerous for landings during the landing and take-off of helicopters. In general, the experience of combat operations

in Afghanistan showed the expediency of using airborne and airborne assault troops to solve a number of special combat missions, most of which could not be effectively performed by motorized rifle units and subunits. The paratroopers acted most effectively as part of tactical airborne assaults, conducting ambush actions, making raids, performing tasks to block the enemy and protect their columns. The success of these actions largely depended on the training of commanders, staffs and personnel of the airborne troops, as well as on the military skill of the crews of combat helicopters.

Under the propeller of a helicopter (Army aviation)

A year before the entry of Soviet troops into Afghanistan, Soviet aviation had already carried out various tasks in the border areas, as well as in the depths of the territory of this country. Aircraft and helicopter flights were mainly reconnaissance and research purposes. At the same time, army aviation helicopters flew with identification marks of the Afghan Air Force in conditions of limited radio communication. At that time, on the territory of one of the aviation units, combined teams were created from among the

officers of the Air Force, mainly of Tajik and Uzbek nationalities. These were pilots, airborne

aviation technicians, ground aviation specialists

aviation engineering service of the Air Force and civil aviation. They took an accelerated course of theoretical training, then studied flying at one of the helicopter schools, then improved their piloting techniques in the regions of Central Asia. Only after that did they begin to independently carry out tasks on the territory of Afghanistan. Hardly any of them guessed that these preparations would become preparations for a long and difficult war in the sky and on the ground of Afghanistan, during which hundreds and thousands of pilots and technicians of various types of aviation would die and be maimed. From the very beginning of hostilities, aviation was given exceptional importance. At the same time, a lot of fire, airborne and special

tasks.

To solve these problems in the sky of Afghanistan, widely used combat, transport-combat and airborne transport helicopters.

Combat helicopters were represented by the Mi-24 rotorcraft. This helicopter was designed for air support of ground forces on the battlefield, destruction of ground, mainly mobile, targets at the forefront and in tactical depth.

In addition, they were involved in laying minefields, conducting reconnaissance and performing a number of other

special tasks. The Mi-8mt transport and combat helicopter was designed for landing tactical airborne assault forces, transporting troops and cargo, as well as for destroying ground targets and solving various special tasks. The

Mi-6 assault transport helicopter was designed for landing tactical airborne assaults, transporting troops and cargo both inside the cargo compartment (up to 12 tons) and on an external sling. It could also be converted to a tanker. The armament of the helicopter consisted of one heavy machine gun with 250 rounds of ammunition.

To control the combat operations of troops in Afghanistan, there was a small number of Mi-9 helicopters - air control posts.



The options for armament and combat charging of helicopters were different and corresponded mainly to the tasks being solved. The main armament option was considered to be a full charge of units with unguided rockets, machine guns and grenade launchers, and guided anti-tank rockets and aerial bombs for various purposes were widely used to perform special tasks. The operation of helicopters in Afghanistan was associated with great

difficulties. Most of the airfields and bases were located at altitudes of 1000–1800 m above sea level and had a lot of dust. The outside air temperature in summer reached 45–52° heat in the southern regions and 40–45° in the northern regions. In the central and western parts of Afghanistan, strong winds constantly arose, especially in the afternoon, which reduced visibility and formed dust storms. In the process of combat activity, flights had to be made in the mountains, rising to great heights. All these conditions significantly reduced the engine power and the payload of the machine, the statistical ceiling fell, the takeoff and landing characteristics and the technical reliability of helicopters deteriorated.

The entire combat zone on the territory of Afghanistan was conditionally divided into four regions, which were controlled by army aviation units and partly by troops. In the north of the country, these are the districts of the cities: Kunduz, Khanabad, Faizabad, Puli Khumri, Tashkurgan, Mazar-i-Sharif; in the east: Khost, Asabad, Jalalabad, Gardez, Ghazni, Kabul, Bagram; in the south: Munarai, eastern and southern border zone with Pakistan, Kandahar, Lashkargah; in the west - the regions of Farah, Shindand and Herat.

According to its physical, geographical and climatic conditions, each region had a number of features in the use of helicopters. Basically, these were mountainous regions bounded by the slopes of gorges, mountains, with an average peak height of 3-4 thousand meters, ridges, and zones of large desert regions. This largely influenced the choice of optimal flight routes for helicopters, the true safe altitudes for flying dangerous zones, the choice of approach directions for attacking targets, reduced the time for aiming, limited and

made it difficult to get out of the attack. In addition, the constant influence of ascending and descending air currents on mountain passes, in gorges, as well as significant difficulties in landing on the tops of ridges and in gorges, significantly hampered the piloting technique and sharply reduced the operational capabilities of helicopters. The equipment of helicopter pilots in Afghanistan

was simple and quite easy to use. It consisted of a flight suit, a steel protective helmet. When performing flights for air support of troops, a bulletproof vest was additionally worn. In addition, each member of the crew was armed with a service weapon, consisting of a pistol and a shortened Kalashnikov assault rifle. The means of rescuing the flight crew included a rescue parachute with a radio station, a set of emergency emergency supplies for the pilot, as well as smoke and light alarms.

The possibilities of using helicopters often depended on the conditions of their basing. In Afghanistan, army aviation units and subunits were based mainly on civilian airfields, as well as on specially equipped sites in the areas of concentration of combined arms units and subunits. Helicopter parking lots, a command post, a missile and ammunition preparation position, engineering and technical buildings of units, an ammunition depot, a fuel and lubricants depot, as well as a parking lot for airfield technical support equipment were equipped at the base sites. Means of communication and radio support were located individually in relation to the features of a given airfield or site.

Residential aviation towns were, as a rule, near airfields or sites. On the territory of the aviation town there were headquarters, residential buildings (modules) for personnel recreation, canteens, a place for watching movies, baths with small swimming pools and other service facilities.

premises.



Construction and equipment of helicopter bases, residential towns was carried out by special engineering and construction units together with the personnel of units and subdivisions of army aviation.

The security and defense of airfields (sites) and residential towns was carried out in a common security system by combined arms units along the perimeter of the outer ring, excluding shelling with mortar fire and small arms of the enemy. The internal protection of helicopter parking lots and residential towns was carried out by aviation units and subunits.

The combat use of helicopters in Afghanistan was significantly influenced by the nature and tactics of the enemy's actions. Dushmans acted in small groups, often at night. In all cases, they practically did not differ in clothes from the civilian population. It was very difficult to detect and hit such an enemy from the air.

Difficulties in use were also caused by the enemy's air defense system. The command of the armed opposition formations attached exceptionally great importance to the fight against aircraft and helicopters, which were considered the most mobile and dangerous means, their detection, blocking and destruction. Therefore, those groups who managed to shoot down an airplane or helicopter deserved the highest degree of distinction and reward.

as well as capture the pilots.

The main means in the fight against aviation were DShK heavy machine guns, anti-aircraft mountain installations, small arms and rocket-propelled grenade launchers. And since the mid-eighties, the mass use of portable anti-aircraft missile systems "Strela-2" and "Stinger" began. Anti-aircraft fire was usually combined with salvo barrage fire from small arms. In addition, for firing at air targets, conventional-caliber automatic weapons were widely used using improvised "machines" that provide an elevation angle and a sufficient firing sector. All these funds were located, as a rule, dispersed and echeloned along the lines. The fire was opened simultaneously on a signal, when the planes or helicopters entered the combat course or when they left the attack. The dispersal of anti-aircraft weapons provided the enemy with fire simultaneously from different directions. In addition, anti-aircraft weapons were installed in positions only when necessary, and the rest of the time they were located in specially equipped shelters. All this made it very difficult to find them and

suppression.

In subsequent years, the enemy more widely began to use the tactics of "roaming ambushes" of air defense systems to combat aircraft. They were exhibited near airfields in the take-off and landing directions, as well as in the intended directions for aircraft and helicopter flights. In order to camouflage fire weapons when firing at air targets, the dushmans refused to fire tracer ammunition. The shelling of aircraft and helicopters was carried out during the attack and departure from the target, as a rule, on the side of the driven crew, from above and behind.

In order to counter enemy air defense systems, army aviation used different heights during various periods of hostilities. So, at the beginning of hostilities up to 1981, mainly extremely low altitudes were used. With an increase in the number of weapons the enemy had, these heights became unsafe and the number of combat damage to helicopters increased dramatically. As a result, army aviation was forced to move to working altitudes of the order of 500-700 m. This somewhat reduced the impact of bullets and shells on helicopters. However, their vulnerability continued

stay high. So, in July 1982, while performing a combat flight in the area of the city of Kandahar, a bullet pierced the armor protection of the lower part of the fuselage of the Mi-24 helicopter, wounded the on-board technician in the helicopter's cargo compartment in the leg, and got stuck in the main

gearbox. With the advent of the dushmans of the Strela-2 MANPADS, army aviation was forced to move to high altitudes, up to 1500 m above the terrain. In addition, to protect helicopters during this period, screen-exhaust devices were widely used, which were installed in engine nozzles and dissipated the heat flow of exhaust gases. Also, infrared jamming cartridges began to be installed on helicopters, which were fired at a given interval in the places where enemy air defense systems could be located and thus "took" homing missiles away from the target. With the advent of the US-made Stinger MANPADS in service with the opposition forces, which made it

possible to hit air targets at a distance of up to 4800 m at an altitude of up to 2000 m, the Soviet command was forced to sharply limit the use of helicopters, especially during daylight hours. However, it was impossible to completely abandon the rotorcraft. Therefore, the requirements for the professional training of helicopter pilots have constantly increased. The training of flight personnel for participation in hostilities was carried out in several stages. It

began on the territory of the USSR in the mountainous desert area of Central Asia and continued after the arrival of the crews in Afghanistan. Here it was divided into general training, which included the commissioning of crews, and direct training for combat operations. Usually it was carried out on the scale of divisions and units. The commanders, having received a combat mission, understood the purpose of the upcoming actions, the plan of the senior commander, the task, place

and role of their unit (subunit), the procedure for interaction with other aviation units and units of the ground forces, the timing of readiness to perform a combat mission. One of the main elements of the work of the headquarters of units and subunits of army aviation in the preparation and conduct of combat operations was constant knowledge of the combat situation and the state of subordinate units. special

attention was paid to assessing the enemy, determining his grouping, intentions, and equipment with air defense systems. In addition, a thorough study of the relief was decisive for the choice of the method of hostilities. In a number of cases, for this purpose, a preliminary flight over a given area was carried out, photographed from the air and studied using photographic plates and large-scale maps. As a result, the accessibility of the area for the actions of combat and transport-combat helicopters, possible places of enemy resistance nodes, firing positions of air defense systems, the direction of a possible withdrawal or maneuver by the rebel forces were assessed.

As a result of the assessment of their troops, specific combat missions were determined for each unit of combat and transport-combat helicopters. In mountainous areas or areas with a highly developed air defense system, the possibility of suppressing it by artillery forces or front-line aviation was assessed. Objects of destruction, directions of exit to them and combat charging of helicopters were brought in an oral combat

order. The direct training of flight personnel for combat operations began with an analysis of past combat sorties, instructive examples, and the discovery of previous shortcomings and their causes. The most important stage in the preparation of helicopter crews for the upcoming combat operations is to work out the issues of interaction between army aviation units and units and subunits of the ground forces. During the operation, the issues of interaction are specified depending on the evolving situation on the ground and in the air through direct contact between the commanders of the ground forces and supporting aviation.



Aviation control during the operation was entrusted to the combat control group and aircraft controllers. The effectiveness of air strikes and the success of military operations as a whole largely depended on their preparation, coordination and clear actions. When operating on specific enemy targets to be destroyed by army aviation, air controllers received a task from the commanders of the battalions with which they were located. All issues of interaction with artillery were agreed on the spot in personal communication with the artillery gunner, who was constantly with the battalion commander. Having specified the location of targets, their cover by air defense systems, the nature of the terrain, the aircraft controller determined the procedure for withdrawing strike groups of aviation to the target area, the most rational direction of entering the attack and withdrawing from it, taking into account the security of its troops and aviation itself. In case of difficulty in detecting and identifying enemy targets by helicopter crews, the aircraft controller carried out target designation using marking means. The direction to the target is indicated by flares, tracer bullets. After carrying out the first attacks by helicopters, the aircraft controller, if necessary, introduced adjustments to carry out subsequent attacks. In the course of air support for ground forces on the battlefield, it was often necessary to redirect helicopters to other more important targets. All this

required careful training of pilots and air controllers, detailed knowledge of the ground situation. In Afghanistan,

army aviation was involved in a number of tasks, which, by their nature, were divided into three main groups: fire, airborne, and special. The most important fire task was the direct support of the combat operations of the ground troops. The main methods of combat operations of units and subunits of army aviation in the course of destroying the enemy in the course of air support for troops on the battlefield were successive strikes by subunits (groups) of helicopters against targets predetermined or identified during combat operations. They

were applied at a predetermined time or upon the call of air controllers from a duty position at an aerodrome (site) or in the air.

The conduct of military operations in the mountains imposed great restrictions on the use of many tactics by aviation. Due to the fact that at altitudes of more than 2500 m the maneuverability of helicopters was noticeably reduced, the accuracy and effectiveness of the use of weapons decreased, such tactics were used to fight the enemy, such as flying to the target under the cover of an enemy air defense suppression group, reaching the target from the direction, not covered by air defense means, performing attacks on the move, from maximum ranges and in minimum time. Over the battlefield, helicopters flew at altitudes of 1500 m

above the terrain. The reduction was made only for the attack, the launch of missiles and the firing of cannons and machine guns. Under these conditions, such a tactical technique as a "vicious circle" of helicopters has proven itself well. The exit from the attack and repeated approaches to the target in a limited space were carried out by combat turns in a horizontal plane or by turning on a hill. Such a tactical technique was carried out only by pilots who were fluent in piloting techniques. At the same time, anti-tank guided missiles in combination with salvo fire from unguided rockets were the most effective means of destruction. For the entire time of the conduct of hostilities in Afghanistan, units and subunits of army aviation have been constantly searching for new

methods and tactics, aviation equipment, used ammunition and weapons were improved. Particular attention was paid to the search for and use of new means of destruction, as well as the use of various night vision devices and binoculars, devices for illuminating targets at night, as well as systems to reduce the likelihood of hitting helicopters with homing missiles.

Certain features in the implementation of air support for troops took place when blocking and combing settlements located in areas of "green zones". These areas had a fairly developed system of irrigation canals and were densely planted with vegetation. Clay buildings and their fences (duvals) often turned into strongholds of enemy resistance. As a rule, our troops under these conditions acted in cooperation with units of the Afghan army under the cover of combat helicopters.

Helicopters went into the combat area at altitudes of 1500-2000 m on the call of the commanders of the ground troops. Aviation support was carried out by means of a vicious circle of individual pairs and units of helicopters for guidance and target designation from the ground by aviation gunners. This method of action was effective only because all the helicopter crews saw ahead of the flying one, and if fire was opened on him, the subsequent crew destroyed the enemy firing point. Attack and aiming were carried out with a dive angle of 20-30°, the withdrawal of helicopters from the attack was carried out at an altitude of 1200-1000 m and at a distance of 1000-1500 m.

It should be noted that the fire from helicopters was often carried out at targets located in the immediate vicinity of the front line of their troops. The minimum ranges for the use of aviation ammunition from their troops were: unguided missiles - 1000, cannon fire - 500, machine gun fire - 300 m. This required special training of the flight crew in the use of various weapons. He had to know the ground situation in detail and clearly and in a timely manner, according to commands from the ground, respond to it.

change.

In the course of carrying out fire missions to support ground forces, the change of helicopter crews was carried out in the air, as a rule,

after the ammunition is used up or according to the remaining fuel in helicopters. Thus, the helicopters were constantly in the air and carried out continuous support for the troops.

In cases where the enemy offered stubborn resistance, attack aircraft or fighter-bombers were called in, which delivered bombing strikes capable of destroying fragile adobe structures and destroying the resistance center.

After the tasks were completed by motorized rifle subunits and units, helicopters covered their exit from the combat area. In the event that, for some reason, individual units did not have time to leave the area before dusk, they took up all-round defense, and combat helicopters continued to be above them. In some cases, encircled units were evacuated by combat transport helicopters at night. So, in the area of the "green zone" of the city of Kandahar in October 1986, during the night, a part of a motorized rifle company was evacuated by helicopters, which was surrounded and was in the zone of enemy mortar fire. In this battle, four out of six dushman mortar emplacements were completely destroyed by combat helicopters. Such cases throughout the armed struggle were not uncommon. They demanded high professional training and moral and psychological preparation from the flight crew. One of the most important tasks performed by army aviation helicopters in Afghanistan was the landing of tactical airborne

assault forces and ensuring their actions. At the same time, both the landing and the evacuation of it after completing the combat mission presented the same complexity.

Upon receiving the task of landing, the commander of the helicopter unit assessed the situation and outlined the most convenient landing sites, which were then carefully studied by the flight crew using photographic tablets. In the process of preparation, special attention was paid to calculations of the maximum take-off weight of helicopters, landing load, elevation of the platforms above sea level and their size, refueling. The profile and routes of the landing flight were chosen taking into account the terrain and bypassing areas saturated with enemy air defense systems.

Fire training was carried out by front-line aircraft and combat helicopters, which destroyed and suppressed objects, enemy manpower, and its air defense systems along the landing routes and directly in the landing area. The landing was carried out immediately after the fire preparation. At the same time, combat helicopters, patrolling in the area where the landing group was lowered, ensured the safety of the landing of transport and landing helicopters on the landing sites and destroyed the newly identified and revived enemy air defense systems. If the enemy's air defense system was not completely hidden, then demonstrative flights of helicopters were used, which provoked enemy fire and thus revealed his fire weapons.



The helicopters of this group could operate at various heights in order to forestall the fire of the enemy, who was on the slopes of mountains and gorges. To reinforce the cover group, attack aircraft were often used, which, while flying in the landing area, had a strong psychological impact on the spooks and destroyed their identified air defense systems with a powerful bomb attack.

The number of landing sites depended on the scope of the operation, the presence of troops and the tasks performed, they were often unsuitable for helicopter landings, had limited dimensions, heavy dustiness and significant elevations above sea level. Therefore, the landing had to be carried out

landing helicopters on one or two wheels, as well as hovering over the steep slopes of the mountains, at the risk of not touching them with the main and tail rotors. The exact landing site should not have exceeded the calculated distance from the previously planned site of 500-1000 m. The most difficult element of the helicopter piloting technique at that time was that the calculation for helicopter landing was carried out on the move, often excluding re-entry. When landing in the mountains and gorges at an altitude of more than 2500 m, the helicopters of the landing group were facilitated by removing part of the weapons and equipment, reducing the number of paratroopers on board and refueling them. Due to the constant shortage of helicopters during the landing of a large landing, several flights of transport and landing helicopters were carried out. So, in the area of the Salang Pass at the end of August 1987, fourteen Mi-8 helicopters landed 1,700 people in twelve flights over four

hours.

It was not uncommon for helicopters to land suddenly on the head of a defending enemy. In this case, the helicopters of the landing group independently hit the enemy with machine-gun fire, and the landing force entered the battle immediately after the helicopters landed. The departure of helicopters from the landing sites was carried out by each crew independently in compliance with security measures, excluding the collision of helicopters in a limited area of mountainous terrain.

Combat helicopters, being in the area of landing sites, carried out fire cover for the landing and directed the safe dispersal of airborne transport helicopters. During the performance of the assigned

combat mission by the landing force, aviation carried out its constant fire support and cover with the change of groups of helicopters and in the air over the combat area. For this, combat helicopters, attack aircraft or fighter-bombers were involved. Airborne transport helicopters maneuvered with forces and means, delivered weapons and ammunition, and also evacuated the wounded and the dead. After completing the task, the landing units could independently go to the concentration area or be evacuated by helicopters.

The experience of the battles showed that the process of evacuating the landing force from

the combat area was often more difficult than the landing itself. This was due to the intensification of enemy activity, the commissioning of fresh reserves, which captured the dominant heights and sought to disrupt the normal operation of aviation. Therefore, it was extremely important to divert the forces of dushmans from the areas of collection and loading of troops. This task was carried out by pairs of combat helicopters by expanding the barrage zone by one and a half to two times.

Less voluminous, but just as difficult, was the task of landing reconnaissance and sabotage groups and supporting their operations behind enemy lines. To accomplish this task, mixed groups were assigned, consisting of one or two pairs of combat helicopters and a link of transport-combat helicopters. Landing areas were chosen no closer than 5-8 km from the routes of movement of the alleged enemy and settlements. The helicopters flew along one or several routes with simulated landing approaches, mainly at dusk, before sunset. The main landing and ambush site of the group was to exclude the presence of the local population, shepherds and animals.

After the landing of the special forces group, the helicopters returned to their airfield or to the nearest location of their troops, where they were in constant readiness for action on call. The right to call helicopters was granted to the commander of a reconnaissance and sabotage unit at any time of the day. If such a need arose, a group of helicopters immediately took off and exited to the area indicated to it, and then acted on instructions from the ground. Flights at night were carried out with the equipment completely turned off. The crews were oriented relative to lighting each other by briefly turning on the airborne navigation lights or flashing beacons. For greater safety, helicopters were echeloned in height every 100-200 m. Army aviation was systematically involved in the destruction of individual enemy strongholds, weapons

depots, training centers and other important objects. Such a task was assigned to each aviation unit and subunit daily, with the performance of three to four sorties a day in cooperation with

fighter-bombers or attack aircraft. Sometimes combat helicopters performed such a task on their own, this was typical mainly in southern Afghanistan. The airborne transport

helicopters involved in this task performed the role of target designation, search and rescue support and photographing the result of the strike. In preparation for these sorties, the helicopter crews studied the combat order, which indicated the area and the enemy grouping, the coordinates of the target, as well as its protection by air defense systems, the composition of aviation, and the time of the bombing strike. After that, the helicopter crews studied the area and the object of operations using large-scale maps and photographic tablets, clarified the composition of the strike group, their call signs and combat exercises. A group of transport-combat helicopters, equipped

with luminous aerial bombs, went to the proposed area one or two minutes before the strike group of fighter-bombers left, established contact with it. After that, target designation was carried out from a height of 1500–2000 m by dropping aerial bombs without a parachute. After that, the crews of the aircraft were aimed at the target and their bombing was corrected.

The strike group of aircraft carried out two or more bombing runs from different directions, then left for their own airfield. Helicopters photographed the strike and presented its results to higher headquarters. Such attacks were of a sudden nature and, as a rule, were very effective.

During the fighting of the Soviet troops in Afghanistan, there were frequent cases of attracting army aviation helicopters to inspect caravans. When performing this task, the helicopter crews had to know well the areas and times of possible caravan movements, enemy tactics, and also be able to visually distinguish peaceful caravans from military ones and clearly interact with the inspection team of ground units. The flight to the proposed area for the movement of caravans

was carried out by a group of amphibious transport helicopters with a subdivision of the inspection group on board and a group of cover for combat helicopters. It usually took place in the early morning or

the onset of twilight, when military caravans, having reached a given area, were transferred to caches or loaded. Having discovered the

caravan, the helicopter crews visually determined its nature by the presence of unmasking signs. Inspection of the caravan was carried out by flying over it at an altitude of 1500–2000 m. If the people accompanying the caravan showed aggression and began to use weapons, the caravan was subject to destruction. If the actions of the caravan are of a peaceful nature, then transport-combat helicopters with an inspection team on board, under the cover of combat helicopters, landed in front and behind the caravan for further inspection and verification. At this time, combat helicopters are in the air in readiness to cover the inspection team, and, if necessary, to ensure its evacuation from the battlefield.



The daily supply of Soviet troops with cargo, fuel and ammunition, delivered mainly by transport convoys throughout Afghanistan, posed an acute problem of ensuring their safe movement along the country's roads. To ensure the safe movement of the columns and their escort, combat helicopters were involved. They constantly loitered over the column, carried out reconnaissance of routes and direct fire support for the combat operations of ground troops when they met with the enemy. With the detection of enemy ambush helicopters

independently or at the command of the aircraft controller, who was in

column, struck at the enemy and destroyed his manpower and firepower. In a collision with large forces of dushmans, reinforcement helicopters could be called from the nearest airfield. With the arrival of reinforcements, escort helicopters carried out target designation. After the end of the battle, they were involved in the evacuation of the dead, wounded and some of the most valuable cargo. A very peculiar

combat mission of army aviation helicopters was the free search and destruction of enemy targets. Its necessity was caused by a sharp intensification of partisan actions of dushmans at night, when maneuvers of forces and means were carried out, goods were transported, and preparations were made for hostilities. In order to prohibit these actions throughout the country, there was a ban on movement at night outside state roads without special permission, which was agreed with the military command. At this time of day, the territory of the country was controlled from the air by army aviation helicopters, which conducted a free search and destruction of targets.

To carry out the search, a pair (link) of the most trained crews of combat and transport-combat helicopters was allocated, for which the search area was established. The flights of the "night hunters" were carried out at an arbitrary height. Unauthorized movement of vehicles was determined by the light of headlights and other reconnaissance signs. Then its coordinates were determined, which were reported to the nearest military outposts, the commanders of which had plans for the movement of columns in controlled areas. Only after that the target was struck from the air. Combat experience showed that the activities of the "night

hunters" were very effective. Local residents easily adapted to the requirements of wartime. But the night activity of dushmans in controlled areas decreased several times. Aerial reconnaissance of the enemy was a constant task of army aviation. It was carried out

both independently by specially allocated crews, and, most often, along with the performance of other tasks. Aerial reconnaissance was carried out in regions or directions. At the same time, photographs of the area were often made.

One of the most difficult tasks performed by army aviation helicopters in Afghanistan was the task of evacuating the dead, wounded, and damaged equipment from the battlefield. These measures were carried out not only by ambulances, but also by other helicopters, often under enemy fire. The search for the crews of downed aircraft and helicopters was carried out by search and rescue crews and technical assistance helicopters. When an aircraft (helicopter) crash site or a pilot landing site was detected, the search and rescue helicopter landed under the cover of a second helicopter from a height of 600-1000 m. the nearest location of motorized rifle troops. Damaged aviation equipment, if it was impossible to restore it on the spot, was disassembled into separate components and assemblies and evacuated on the external sling of a transport helicopter. The main role in the evacuation and search and rescue operations was performed by the crews of the Mi-8 helicopters. In carrying out this complex task, the flight personnel of army aviation often showed exceptional courage and skill

under enemy fire. To this end, in each aviation unit or subdivision, special duty forces were assigned for a day to perform this task, which had a rescue team and the necessary rescue equipment on board. In addition to those listed, army aviation helicopters were assigned the tasks of mining the area, adjusting artillery fire, transporting and lighting support for troops, command and control and material support. The tasks of mining the terrain from the air were carried out by a pair or a link of Mi-8 helicopters. Minefields were laid

on the routes of movement of large enemy formations in difficult terrain. At the same time, mines were also set for self-destruction in 2-24 hours. Correction of artillery fire was carried out, as a rule, by single helicopter crews flying along

the intended route with a high hover mode, providing good visibility of the targets being hit and exploding artillery shells. Data for

fire correction were transferred to the command post of the artillery battery.

In the course of solving the tasks of transporting troops, Mi-6 transport helicopters and Mi-8 transport-combat helicopters were widely used, which took on board, respectively, 40 and 10 people in full armament. Moreover, until 1985, Mi-6 helicopters were more often used for this purpose. Subsequently, in connection with the increase in the effectiveness of enemy air defense systems, these helicopters were mainly redirected to transport cargo. The personnel were transported by Mi-8 helicopters, and to increase security, they were provided with parachutes.

The task of providing light to the troops was carried out when it was necessary to illuminate a given area or settlement at night. The outfit of the helicopter forces was selected from the conditions of the required lighting area and lighting time. Mi-8 helicopters, leaving the area of illumination, dropped luminous aerial bombs on parachutes in the amount and with such a time interval that was required for continuous illumination of a given area. So, in 1983, during an operation in the city of Kandahar by government troops, a squadron of Mi-8 helicopters continuously illuminated the entire city all night.

Troops and aviation were controlled by communications and radio technical support centers deployed at command posts and in operational groups. An important role in improving the reliability and continuity of command and control of troops and aviation was played by the use of repeater aircraft and helicopters, which provide radio communications both between ground control points and between them and aircraft (helicopters) in the air. Mi-6 helicopters were

used to provide troops with material resources in hard-to-reach areas of Afghanistan. They carried out the transportation of equipment, ammunition, food, fuel and lubricants and other goods necessary for the life of the troops. Thus, the tasks facing the army aviation in the course of hostilities in Afghanistan were mostly

carried out successfully. At the same time, there were significant shortcomings in the actions of commanders, headquarters and individual crews, which led to unjustified

losses. In total, during the stay of a limited contingent of Soviet troops in Afghanistan, they lost 329 helicopters, including 127 combat, 174 transport-combat and 28 transport. Such significant losses were the result of poor reconnaissance of the enemy and his air defense system, insufficiently precise work of commanders of all levels in organizing and conducting combat, the poor quality of training of flight personnel who arrived as a replacement from the Union, and also the excessively high combat tension of the use of army aviation.

The need for troops in army aviation helicopters increased significantly from year to year, and the combat stress on the flight crew also grew. Thus, the average combat stress per pilot per day reached 6–8 sorties, and during the year of their stay in Afghanistan, the flight crew performed 600–800 sorties with a total flying time of more than 1000 hours. For this During the period, the flight personnel showed various signs of overwork, significant functional changes, disorders in the cardiovascular and motor systems, and pronounced mental disorders often manifested themselves. Injuries and deaths of flight personnel in emergency situations in many cases were due to poor use of rescue equipment, insufficient survivability of helicopters in case of damage to the cockpit, the central part of the fuselage, hydraulic and fuel systems, as well as insufficient strength of seats and seat belts during emergency shock overloads on helicopter landing . Modern helicopters turned out to be insufficiently adapted for combat operations in conditions of high outdoor temperatures and high mountains. They were too heavy and had a low power-to-weight ratio. All this had a negative effect on the results of the combat use of army aviation helicopters.

Intelligence Reported Accurately

The guerrilla nature of the rebels' military operations and the difficult terrain, which made it possible to effectively use small detachments and groups, determined the significantly high role of intelligence in the performance of various operational and combat missions by the Soviet troops. Under the conditions of Afghanistan, it was not only a type of support for combat operations, but also a factor that determined the combat potential of troops, their ability to most effectively use the entire available arsenal of means of armed

struggle. In Afghanistan, intelligence was entrusted with solving a number of complex tasks. She had to constantly monitor changes in the military-political situation in the areas of responsibility and the nature of the enemy's actions, identify the combat and numerical strength of detachments and groups of dushmans, their location, degree of combat readiness, sources of supply with weapons, ammunition, food and other materiel.

If at the time of the introduction of a limited contingent of Soviet troops in Afghanistan, the share of reconnaissance units and subunits in their composition did not exceed 5%, then subsequently it increased 4 times and reached 20%. However, as combat practice showed, these forces were also

often not enough. The main method of reconnaissance in the zones of responsibility of the troops was observation, which was carried out both visually and using reconnaissance

signal equipment. Observation posts were organized to monitor the rebels at the outposts. They were equipped with day and night observation devices (binoculars B-6, B-12, BN-1, BN-2) and radar stations PSNR-1, PSNR-5, SBR-3. These tools made it possible to detect rebels at night at a distance of 1.5–4 km and defeat them with 82-mm and 120-mm mortars, AGS-17 grenade launchers, and heavy machine guns. Experience has shown that where observation was skillfully organized, and its results were quickly carried out by artillerymen, the effectiveness of combat operations was quite high.

So, at one of the outposts located on the Kabul-Termez highway, where the unit of Captain A.A. Serpov, within two months, intelligence was received on the movement of 23 groups of rebels at a distance of two to four kilometers. The fire raids carried out on the basis of the results of the observation gave good results: 17 rebels were killed, two were captured and 14 pack animals, 12 machine guns, a DShK machine gun, 180 rockets and 450 kg of medical equipment were captured.



In order to detect the enemy at greater ranges in threatened directions, reconnaissance and signal equipment (RSA) complexes were installed, the basis of which was seismo-acoustic sensors. They were installed at a distance of 5-20 km from the outpost and were targeted by artillery. With the receipt of information about the passage of groups of rebels, it was assessed by the commander of the outpost, after which artillery fire was opened on the area no later than 3-7 minutes. The effectiveness of the impact on the enemy, thus, was quite high. On one of the caravan routes in the province of Wardak, along

which the rebels moved most intensively, two SAR lines were established in combination with an anti-personnel minefield control complex (40 anti-personnel mines at the front

300 m). One SAR sensor was set to determine the number of people and animals in the caravan. Another, installed on the trail 400 m from the first, gave a signal that the head of the caravan was drawn into minefield.

One night, the sensor showed the movement of a caravan of 20 people with pack animals. After 7 minutes, the second sensor worked. At the same time, a command went to the executive devices of the controlled minefield. As a result, 12 rebels were killed and one captured; as trophies, 20 rockets, 4 machine guns, 8 anti-tank mines, 30 zinc with DShK cartridges were captured. More active means of reconnaissance of the enemy were ambushes, raids and planned combat

operations. During the first years of Soviet troops in Afghanistan, reconnaissance ambushes were often ineffective. There were several reasons for this. The main one was that the commanders and staffs lacked the proper sense of purpose, there was no daily painstaking work to analyze the actions of military intelligence. As a result, shortcomings in the actions of reconnaissance units were poorly studied, their causes were not revealed in a timely manner and were not always brought to the attention of individual units and subunits. This led to the fact that the actions of the military intelligence agencies were dominated by a template to which the rebels soon got used and took appropriate countermeasures. In addition, the tasks that were assigned to intelligence units were often of a general nature. They were not specified in terms of objects, time and place of action. This led to indecision and lack of initiative on the part of the commanders, gave rise to irresponsibility in the performance of the assigned reconnaissance missions. Subsequently, taking into account the previous shortcomings, ambushes began to be organized more skillfully. Their frequency and effectiveness have increased dramatically. To conduct an ambush, as a rule, a reconnaissance group was allocated, which was created on the basis of a reconnaissance platoon or company, reinforced by units of sappers and

flamethrowers. In addition to weapons, the personnel had night vision equipment, silent firing devices and radar reconnaissance stations (SBR-3).

The advance of the reconnaissance group to the ambush site was carried out in stages, with strict observance of camouflage measures. The battle formation of the ambush consisted of two main groups. It included a support group and a destruction group, the latter, in turn, was divided into subgroups of destruction, capture and support.

The actions of scouts in ambush, as a rule, were decisive and swift. So, in the fall of 1984, in one of the ambushes organized northeast of Kabul, a group of 14 scouts in a short-lived battle defeated a group of 40 dushmans, while 23 rebels were destroyed and 9 were captured. In another such ambush, carried out in May 1986, in the Jalalabad region, a group of 22 scouts dispersed a detachment of dushmans of more than 50 people during a 20-minute battle. At the same time, 18 rebels were killed, 15 were captured and two vehicles with weapons and ammunition were destroyed. It is noteworthy that in both cases, the Soviet troops did not lose a single person killed.



The raid was carried out in order to obtain information about the enemy and the operational implementation of intelligence data to destroy small groups, command posts, Islamic committees, warehouses and other objects of the rebels, to capture the leaders of the opposition and the leaders of the counter-revolutionary underground.

The successful conduct of the raid was ensured by the timely receipt of the latest intelligence data on the object of the raid, the speed and secrecy of the advancement of the unit, surprise and

the decisiveness of the actions of the personnel, the clear interaction of forces and means.

The raid on the enemy object was carried out at night or at dawn and, as an exception, during the day. On-duty reconnaissance responsibilities were involved in the raid. From the forces and means departments, appointed V zone assigned to the raid, a group for the destruction of the guards, an attack group and a fire support group were created. If the forces intended for the raid were transferred to the combat area by helicopters, then another airborne support group was created. The task of the latter was to capture the landing area and ensure the landing, and after the task was completed, the landing and evacuation of the unit.

Thus, in the areas of responsibility of formations and units of a limited contingent of Soviet troops, not only passive, but also active reconnaissance was carried out. It allowed commanders and staffs to know the situation in their area and respond in a timely manner to enemy actions. Often, intelligence received on the ground was the basis for active large-scale military operations. During the preparation and during the hostilities, all types of reconnaissance were activated to the maximum. However, the amount of intelligence information received from the types of intelligence at different stages was not the same.

SHARE OF INTELLIGENCE TYPES IN RECEIVING INFORMATION (Percentage)

Виды разведки	При подготовке к боевым действиям	В ходе боевых действий
Агентурная	65	30
Воздушная	20	15
Радиоразведка	15	10
Войсковая разведка	—	45

As the data in the table show, undercover intelligence played a dominant role in preparation for hostilities. The intelligence network of state security and the Afghan police was used as sources. However, the efficiency and reliability of this information were low. Considering that the agents were not provided with means of communication, additional reconnaissance of the combat area took from 3 to 6 days or more. During this time, some of the information became outdated and lost its significance. Aerial reconnaissance of the combat

area was carried out on Su-17MZr aircraft by visual observation and aerial photography using long-focus aerial cameras AFA-42/100. Initially, aerial reconnaissance of the area was carried out from the An-30 aircraft, which carried out survey aerial photographs on a scale of 40–80 m/cm. m / cm, which made it possible to determine the type and nature of each object.



The large distance between the areas of combat operations from the points of permanent deployment of troops often excluded the possibility of conducting radio reconnaissance of the enemy from stationary and mobile ground-based radio interception posts. Therefore, it became necessary to conduct radio reconnaissance from aircraft. It was carried out in the following order. During the first two or three days, up to two sorties of 2-4 hours were carried out by a pair of Mi-8 helicopters with radio intelligence and interception equipment. Since the rebel radio stations maintained radio silence and went on the air at a strictly defined time, military cunning was used to intensify their activity. Simultaneously with the helicopters entering the area on a parallel course, a pair of Su-25 attack aircraft bombed nearby objects, which caused intense radio exchange among the rebels. All broadcasts were recorded and taken direction by air PRP. Subsequently, all radio networks and directions were taken under control by listening to radio stations from the An-26rr aircraft. Radio intelligence data, supplemented by information from undercover intelligence, made it possible to successfully conduct military operations in the designated area. With the beginning of the hostilities of the ground troops,

military intelligence was actively involved in reconnaissance of the enemy. It was conducted by surveillance, eavesdropping, as well as ambushes and raids. To solve these problems, observation posts were created, reconnaissance patrols, reconnaissance detachments were allocated.

Observation was the most common and most accessible method of reconnaissance during hostilities. It was conducted in all types of combat in all divisions, starting from the squad, crew, calculation. A dense network of observers and observation posts made it possible to observe the terrain and the enemy at the visibility range of optical instruments, the effectiveness of observation was sharply reduced at night in mountainous conditions.

The experience of conducting reconnaissance by observation showed that in the mountains the number of observation posts (OP) in all links had to be increased two to three times. Therefore, subunits were allocated from their composition: a platoon - 3-4 observers, a company - 1-2 observers and 1-2 NP, a battalion - 1-2 observers and 2-3 NP. Each observation post was equipped with observation devices and

radar stations SBR-3. When creating a surveillance system, it was important to eliminate "dead" spaces. This was achieved by separating the OPs in height and creating a surveillance system in several tiers. At night, part of the observation posts moved from the heights to the lowlands, since at night observation from the bottom up gave the best results.

With the onset of darkness, observation was supplemented by eavesdropping, which was carried out by all observers. In the battalion and company, special eavesdropping posts were created, consisting of 2-3 people who had good hearing and were able to recognize the nature of enemy actions by sound unmasking signs. If the conditions of the situation made it possible to listen to the conversational speech of the rebels, then the military personnel who knew the local language were included in the eavesdropping post.

During the movement of troops, reconnaissance was carried out by reconnaissance patrols and reconnaissance detachments. Combat reconnaissance patrol (BRD) was assigned from the battalion as part of a regular reconnaissance platoon at 600-1000 m, reconnaissance patrol (RD) was sent from the regiment as part of a reinforced

reconnaissance platoon to a distance of 2-5 km. Reconnaissance detachments (RO) consisting of one to three companies, which were sent to the most important directions at a distance of 5-10 km or more, were widely used. Often several reconnaissance detachments were created. Each company operating in the RO was reinforced by sappers, flamethrower chemists, snipers and heavy weapon crews (82-mm mortar, AGS, Utes machine gun). The company commander was given artillery reconnaissance and fire correction groups and the Romashka radio station for communication with the crews of aircraft and helicopters. Under the commander of the reconnaissance detachment was an aviation gunner. Such integration of reconnaissance forces and means and direct access to weapons of destruction made it possible to significantly reduce the time of the reconnaissance-destruction.



During the hostilities, a large amount of intelligence information came from the intelligence of the armed forces. Artillery reconnaissance and fire correction groups formed the basis of artillery reconnaissance. These groups followed in combat formations together with the commanders of combined arms (reconnaissance) units. The group, as a rule, included a spotter officer, 1-2 reconnaissance officers and a radiotelephonist. The group had reconnaissance equipment (binoculars, compass, laser reconnaissance device

LPR-1) and means of communication (R-107, R-159). This made it possible to determine the coordinates of objects (targets) in a short time, prepare data for firing and inflict fire

damage. The artillery reconnaissance means available to the artillery units (the VPZK radar complex, the SNAR-10 reconnaissance radar of moving targets), in terms of their technical capabilities in the conditions of mountainous desert terrain, did not ensure the effectiveness of reconnaissance of firing positions of mortars and rockets. The detection of mines and shells by the ARK-1 station was difficult for the reason that the reflection from the slopes of the mountains absorbed the useful signal. In addition, the rebels took appropriate measures to reduce the sound and light unmasking signs that arose during the firing of their artillery. These shortcomings were compensated to some extent by the merging of military and artillery intelligence and their actions according to a single plan, with common goals.

When obtaining intelligence information about the enemy, an important role belonged to engineering intelligence. One of the most important and most difficult tasks was the opening of the enemy's obstacles, especially mine-explosive ones. The fulfillment of this task was complicated, on the one hand, by the peculiarity of the actions of the rebels, who ingeniously set up sabotage and ambushes, on the other hand, by the widespread use of mines in plastic cases, which are difficult to detect by mine detectors, and the imperfection of the existing means of their search. As a result, the pace of engineering reconnaissance of routes rarely exceeded 3–4 km per hour, which greatly hampered the performance of various combat missions.

During the hostilities, radio reconnaissance and radio interception were actively used. Experience has shown that these types of reconnaissance were most effective during the period of fire training and in the first 4-6 hours after the start of hostilities. After this time, the rebels often stopped the radio traffic, hid the radio stations and left the area. Since all helicopters were used in the interests of tactical airborne assaults, for radio reconnaissance, as a rule, search and rescue helicopters (a pair of Mi-8) were used, which were constantly over the combat area and at the same time successfully performed the tasks of radio interception air posts.

The bearing accuracy, depending on the distance to the source, was 150–500 m.

Enemy reconnaissance during combat operations was also successfully carried out using reconnaissance and signal equipment (RSA), the signals from which were sent to command posts of troops, artillery firing positions and to special "rapid reaction" forces. Thus, during the Panjshir operation, 11 RSA lines were established. According to the signals received from them, 6 air strikes were carried out and 34 fire raids were carried out. As a result of this, 12 groups and 4 caravans were defeated, 36 dushmans, 41 beasts of burden and 4 vehicles with weapons and ammunition were destroyed.

A large amount of intelligence information came to the headquarters and troops from prisoners and documents that were captured as a result of inspections of caravans, organizing ambushes and searches. Specially assigned reconnaissance units and formations were used to inspect caravans. The inspection was carried out by detecting a caravan, suddenly blocking it and inspecting the caravaners and cargo in order to detect and seize weapons, ammunition, equipment, documents, and receive prisoners. Detection of caravans was carried out by aerial reconnaissance, ground observers, using SAR or other methods. After the discovery of the caravan, the helicopters flew around it in a circle and fired from on-board weapons gave a stop signal. Then the helicopter with the support subgroup landed 200–300 m ahead of the caravan or to the side. Under the cover of a second helicopter, which was ready to open fire, the support subgroup made a landing and took up an advantageous position in combat readiness. The

helicopter immediately after landing rose and covered the landing of the inspection subgroup. The screening subgroup, under the cover of the support subgroup and helicopters, began the search. People responded from the caravan to the side, searched for the presence of weapons. At the same time, a cargo inspection

subgroup with the help of mine detectors, probes and mine detection dogs was inspecting the cargo. In the event that weapons, ammunition, literature were found in the packs and among the caravaners, they were delivered under guard to the point of permanent deployment, where

initial interrogation. After that, the prisoners were transferred to the bodies of the MGB in the established order. The confiscated weapons and ammunition were loaded into helicopters and transported to the points of permanent deployment of troops, and if transportation was impossible, they were destroyed on place.

The time of inspection of the caravan depended on the possibility of a continuous stay of helicopters over the group in the air. As a rule, it did not exceed 30-35 minutes, and at a significant distance from the airfield it could be even less. Such a tight deadline required clear, coordinated actions from commanders and personnel.

Work with prisoners and detainees provided a large amount of intelligence information about the enemy, however, it required a clear organization and great knowledge of the situation, the host country and its people. The main purpose of the interrogation of the prisoners was to obtain reliable data on the location of transshipment bases (points), warehouses with weapons, caravans, Islamic committees.

During the interrogation, the tasks of obtaining information about the enemy that were of interest to the commander, establishing the true face of the prisoner and the veracity of his testimony were solved. After that, a decision was made on the further use of the prisoner in the interests of intelligence (as a guide, gunner or transfer to the intelligence agency of a higher headquarters). The organization of the interrogation of prisoners was entrusted to

the unit commander and his headquarters. The chief of intelligence was in charge of the interrogation.

There are two main types of interrogation: primary and full. The initial interrogation was carried out in the combat area, the full one - at the headquarters of the formation or unit. Thus, as the experience of the

combat operations of the Soviet troops in Afghanistan showed, reconnaissance was one of the most important types of combat support. The success of combined-arms, airborne battles, the number of losses depended on its effectiveness. At the same time, high-quality reconnaissance required the availability of the necessary forces and means and high special training of the personnel of reconnaissance units and subunits.

Don't nap on duty

The fighting in the Republic of Afghanistan was characterized by the absence of a continuous front line. The techniques and methods used by the opposition in the armed struggle were, in essence, partisan. The objects of attack, as shown by the first months of the stay of a limited contingent of Soviet troops in Afghanistan, were primarily important administrative and industrial facilities, garrisons of military units and transport communications. In this situation, a significant part of the units of the Soviet troops were involved in their protection, which in most cases was organized by setting up outposts and outposts. One of the most important duties of the Soviet troops in Afghanistan was the protection of the so-

called regime zones and communications. Security zones were created around airfields, power plants, Soviet and Afghan garrisons and important administrative centers in order to ensure security and public order, to prevent and suppress the hostile activities of opposition forces.

In these zones, a special order of life and activities of the population was established. Maintaining order in them was entrusted to the bodies of the Ministry of Internal Affairs, the Ministry of State Security of Afghanistan and the Afghan units. However, the main role in the protection of regime zones and especially communications belonged to the Soviet troops, who performed this task by setting up permanent outposts. In total, the forces of the 40th Army created 862 outposts, on which 20-200 people served. This amounted to about one-fifth of the total number of Soviet troops in Afghanistan.

Outposts were equipped for long-term residence and service. For their construction, various ruins of former buildings were usually used, each of which was prepared for all-round defense. Many outposts were created from scratch using scrap materials. Here, a broad initiative and invention of the command and all personnel was manifested.

The security and defense of the objects of Soviet-Afghan cooperation, and there were about twenty of them, were organized by Soviet units in accordance with the orders of the Council of Ministers of the USSR. Their protection was carried out in the general system of regime zones, as well as by setting up special guard posts and guards. Most of the objects had double protection: internal and external, with the involvement of units of the Soviet and Afghan troops. Responsibility for organizing the

security and defense of airfields was assigned to the heads of the Soviet garrisons. It was organized along three frontiers. On the distant approaches and along the perimeter, outposts carried guards, the internal protection of airfield facilities was carried out by guards. In total, 140 outposts were created to protect ten airfields. In addition, 224 outposts performed a dual task: they stood on the roads passing through the regime zones of airfields, and were part of both the road protection system and the system of regime zones. One of the many sensitive zones on the territory of Afghanistan was

guarded by the 2nd motorized rifle battalion, reinforced by a battery of D-30 howitzers and two tank platoons. It was, as Lieutenant Colonel A.P. notes in his memoirs. Yunakov, the district of the area where the command of the airborne assault brigade, the airborne assault battalion, the communications battalion, the electronic warfare company, the helicopter squadron and the artillery battery were stationed. Along with the protection of the garrison, the battalion was assigned two more tasks - escorting columns along the 80 km route with an intensity of two or three columns per week and fighting rebel groups in the surrounding areas. To accomplish these tasks, the forces and means of the battalion were distributed as follows. To protect

the garrison along the perimeter, the length of which was 12 km, seven outposts were set up, consisting of one or two motorized rifle platoons with reinforcements each. To escort the columns, from one to two motorized rifle platoons with one or two crews of 82-mm mortars were allocated. To inflict defeat, disperse the armed formations of the rebels and joint actions with the "Tsaranda" battalion, a motorized rifle company was usually allocated,

reconnaissance platoon, artillery battery and two mortar platoon.

After the creation of this regime zone near the city of Lashkargah in 1985, the garrison was repeatedly attacked by rockets from the "green zone" of the Helmand River. Therefore, at the beginning of 1987, together with parts of the Afghan army, an operation was carried out in order to push the enemy away from the city and establish outposts of the operational police battalion in the "green zone". After the operation was completed, another outpost was set up from the motorized rifle battalion in the Kalabust fortress. Its location made it possible to control the strip of the "green zone" in front of the "Tsarandoy" posts. Close cooperation was maintained between the outpost and the Afghan units. An important role in this was played by the communications officer of the Tsarandoy battalion, who had his own means of communication. The fire support of the outpost was provided by a tank platoon located in the fortress, and by the artillery of the battalion. Thanks to their fire, several attempts by the rebels to destroy the outposts of Afghan units were prevented.



In the future, a clear interaction was established with the headquarters of the operational police battalion, the border brigade and local party organizations. This allowed me to control the situation.

near the regime zone, to know the areas of location of the bases of the rebels, their detachments, posts, routes of movement. As a result of coordinated actions, it was often possible to stop the plans of the opposition in time. From the end of 1987, its leaders refrained from active operations in this region, where peace had come, up to the withdrawal of Soviet troops from the territory of Afghanistan.

In the interests of achieving reliable protection of the personnel of outposts from machine-gun and mortar fire, much attention was paid to their engineering equipment. Each section was equipped with a position. All outposts were connected to the position of the trench platoon. In addition, sleeping quarters, an ammunition depot, an office, a Lenin room, a dining room, a place for storing drinking water, a washbasin, a latrine were equipped at the outpost, if possible.

place.

The performance of tasks by outposts was largely ensured by the high organization of the service. First of all, it should be noted that the most difficult period of the day for organization of observation was the night. In order to increase the observational capabilities of outposts, outposts were set up from them for this time. The sentry post, as a rule, consisted of three people: an armored personnel carrier machine gunner, a driver and a gunner. Sometimes two people stood out in the composition of the post, but no less. The intercession for combat duty was carried out at 18 o'clock, after finishing the combat order and password. The change of personnel at guard posts was carried out after four hours by the platoon commander or his deputy. Service was checked after two hours. At night, from 18 pm to 5 am, it was allowed to carry out warning shelling of the area from small arms. It was carried out only by single shots. When firing in bursts, the outpost rose "in

the gun" and acted according to the combat crew. Artillery could also fire at designated targets. At the same time, the gunners were guided by a previously developed schedule. On all targets that appeared in the area of responsibility at night, fire was opened without warning. During the check, the officials reported the time to the outpost

arrivals and identification signals. With the onset of dawn, the guard posts were removed. To ensure the safety of outposts, all movements of people, columns and caravans in the Registan desert at a distance of up to 4 km were suppressed by fire. The exit of personnel from the position of the outpost was strictly prohibited. The change of outposts was carried out six months during daylight hours after

the end of the night service according to an act approved by the battalion commander. Such an approach to the organization of outposts as a whole ensured the normal functioning of military garrisons.



Practice shows What The leaders of the opposition gave priority to disrupting the movement of vehicles on highways. Their protection was assigned to motorized rifle units. At the same time, a motorized rifle battalion was assigned a zone of responsibility from 40 to 150 km, and a motorized rifle company from 2 to 10 km. For example, the 3rd motorized rifle battalion, reinforced by a tank company and two artillery batteries, which included 11 tanks with reinforcements, 42

infantry fighting vehicles, 12 self-propelled artillery mounts, 27 32-mm mortars, 9 twin anti-aircraft mounts and 23 automatic grenade launchers, a zone of responsibility was defined on the 102 km section of the Puli-Charkhi-Jalalabad road. By decision of the battalion commander, Lieutenant Colonel Tubeev M.A. the area of responsibility of the battalion was divided into three sections. For the 7th motorized rifle company, the responsibility area was 32 km, for the 8th motorized rifle company - 30 km, for the 9th motorized rifle company - 40 km.

Another motorized rifle battalion, under the command of the guard Major V. I. Traschak, in 1988, performing a combat mission in the regime zone, received for protection a part of the road 40 km long on the Kandahar-Shindad route. At the same time, the 7th motorized rifle company was assigned a responsibility area of 10 km, the 8th motorized rifle company - 9 km, and the 9th motorized rifle company - 2.5 km. In addition, a differentiated approach to the distribution of reinforcement means can be traced, which manifested itself in the fact that the more responsible the site was, the more forces and means were allocated for its protection. So, the 7th motorized rifle company received for reinforcement a tank platoon without one tank, a mortar platoon, and the 9th motorized rifle company received 4 tanks, a ZSU-23-4M, 3 mortar platoons, an engineering and sapper department. The length of zones and areas of responsibility of battalions and companies was ultimately determined based on the importance of protected objects, the nature of the terrain, the

availability of forces and means, and the nature of the opposition's actions. As experience shows, the tasks of motorized rifle subunits, carrying guard guards, were not of the same type. So, in April 1985, a motorized rifle battalion, reinforced by a tank company and an artillery battery, being on guard along the road on the Termez-Kabul route, in addition, guarded the pipeline in the area of responsibility. Another motorized rifle battalion, reinforced by a tank company and two artillery batteries, guarding a section of the Puli-Charkhi-Jalalabad road in February 1986, also guarded a hydroelectric power station in the Naglu region. The motorized rifle battalion of the Kandahar separate motorized rifle brigade in May 1987 carried out the passage of columns and guarded the special forces brigade at the point of permanent deployment.

Thus, the motorized rifle units that were on guard were assigned the task of identifying and destroying the security rebels on plots responsibility, the unhindered passage of columns along the main routes and the prevention of mining roads, bridges, tunnels, and in addition, a number of other specific tasks.

The basis of the outposts consisted of a platoon reinforced with one or two AGS-17 grenade launchers, one or two RPK machine guns, one or two Utes or DShK heavy machine guns, one or two 82-mm mortars and tanks.

Guard detachments (reinforced company or battalion) were created from outposts. Guard detachments were reinforced by artillery units, tanks, engineering units for the construction and maintenance of minefields covering the positions of outposts, and for clearing roads and terrain. The change of units in the protection of roads and state facilities was carried out after three months, and in the protection of military

camps - after a month. The change of guard units was carried out in the presence of the direct chief and was drawn up by an act, which was approved by the unit commander, and signed by the chiefs of outposts, company and battalion commanders. The transfer of minefields was also carried out according to the act in the presence of representatives of the engineering service of the regiment.

However, the timing of the change of units that were on guard was often violated, which led to a decrease in their combat readiness. This was typical for the units located in Kandahar, Jalalabad, Kunduz, Faizabad. The main reason for the delays was that other subdivisions of the unit, located in the points of permanent deployment, were involved in solving various combat missions according to the plan of the higher command.



For service at the outposts, a daily outfit was assigned (on duty and two or three orderlies), one observer at the positions of the squad (tank) and a pair patrol. For the timely detection of the enemy and warning about him, secrets or remote outposts were set up on hidden approaches. At each outpost, one or two remote posts of four to six people were usually organized. They were, as a rule, at a distance of 500–800 m from the outpost. Such a removal provided not only wire, but also visual communication, and, if necessary, effective support for outposts by fire from outposts. The exit routes to the outposts were equipped with shelters and were supposed to ensure the safety of the ascent and descent of personnel, the convenience of firing.

The positions of the outposts were preparing for all-round defense, to repel an enemy attack both from above and from below. In this regard, platoons were assigned lanes of fire, additional sectors and areas of concentrated fire, and all fire weapons were assigned main and alternate firing positions and firing sectors.

Much attention was paid to artillery fire. Artillery units at outposts were located taking into account the mutual reach of each other. In the area of each outpost

artillery fire was planned on the probable directions of enemy operations. The targets were shot in advance, their numbering and coordinates at each artillery crew and at the head of the outpost were stored in the form of a fire card.

The fire on the target was carried out taking into account the planned one or with an adjustment on the call of the commander of the outpost. If for some reason the outpost had no direct connection with the artillery units, then its fire support was carried out at the command of the battalion commander. Practice shows that it took no more than two to four minutes to open fire on a group of rebels discovered from a guard outpost or from a remote post. Outposts were equipped in terms of engineering and landscaped, taking into

account the terrain and duration of service. Full profile trenches, dugouts, shelters for ammunition, food and water were torn off (made out of stone). Wire fences were created around the position, usually in two rows of stakes, with anti-personnel mines placed between them for stretching. On the distant and hidden approaches to the object of protection, in addition, signal mines and reconnaissance signal equipment were installed. The passage and the entrance to the outpost were closed and mined at night. The borders of guard posts and outposts were marked with pointers in Afghan, Russian and English, indicating the order of conduct. At each outpost, stocks of ammunition were created in the amount of five ammunition, food, water, fuel and fuel for ten days. In addition, for observation at night there

were night vision devices, Blik binoculars and night sights, flares and cartridges.



The outpost had a number of documents that determined its activities. These included: an instruction that determined the combat mission of the outpost and the procedure for its implementation; working map with the situation; diagram of positions, minefields and fences; strong point scheme; extract from the combat order of the battalion commander; combat order of the outpost commander; the schedule for the service of observers, patrols of secrets, duty of fire weapons; signal table; logs of observation, combat operations, accounting of sabotage. In the battalion, which was on guard, a plan was developed for organizing the guard. It indicated: the number and composition of outposts, their location, the amount of equipment, weapons and ammunition

at each outpost, security zones and the combat mission of protecting objects, the procedure for interaction between outposts and posts of government troops, the order of fire engagement of the enemy, the organization of communications between outposts, points of permanent deployment, passing dispatcher supporting fire weapons. In addition, the battalion had a schedule for the change of units and a combat order from the battalion commander for the organization of guards. For driving

columns,

posts

And

the units had, in addition to regular ones, additional means of communication (radio stations, telephone sets and cable). The main means of

communication was radio communication. It was organized with all outposts. The outpost had two or three telephone sets, one or two VHF radio stations operating on the same frequency. The same frequency was set on all armored objects in the battalion and attached units, and for the purpose of interaction it was reported to the military columns following along the route. Constant duty in the radio network was mandatory for all units (outposts) for the period of the passage of the columns. At other times, constant watch on radio equipment in the network of battalion and company commanders was carried out using the set of radio stations of command and staff vehicles available in the battalion; portable radio stations of motorized rifle companies and artillery units. The rest of the outposts communicated with the command and observation posts of their companies according to a set schedule, as a rule, hourly or if necessary. All this made it possible to maintain stable interaction and ensured a high level of constant readiness of units for action.



The organization of combat duty at outposts was aimed at ensuring the safe and uninterrupted movement of military columns along the road during daylight hours, taking into account the specific situation and the experience gained by commanders and personnel. Practice shows that two-thirds of the personnel were usually involved in serving at night as sentries, observers, as part of secrets, crews of fire weapons on duty. The rest, about one-third of the personnel, were recruited to serve during daylight hours. After dawn, as a rule, until ten o'clock, the commanders of the outposts carried out checks on their sites, making sure that there was no threat to the movement of the columns. Readiness reports were received by the senior commander in charge of the entire section, who, as a rule, gave the command to move and let the columns through.



The duties of the commander of the outpost included checking the service of sentries, secrets, and fire weapons on duty. He personally or his deputy checked the service every hour at night and every two hours during the day. In addition to them, the company commander daily checked all the outposts, and the battalion commander did a random check of two or three outposts. The latter, for one or two weeks, checked all the outposts put up by the battalion. Senior commanders checked outposts according to their plan. This contributed to the maintenance of outposts in high combat readiness and the proper organization of the service for the protection of the entrusted area. At the immediate disposal of the battalion commander

near his command and observation post was a reconnaissance platoon, which was entrusted with the task of implementing reconnaissance data in order to suppress the activities and destroy small groups of rebels in the battalion's area of responsibility. His actions boiled down mainly to setting up ambushes on possible ways for the rebels to exit the road. These actions of the units were carried out according to the plan agreed with the headquarters of the regiment. If it was necessary to change the location of the ambush, a report indicating the new coordinates from the battalion headquarters was sent to the regiment's combat control center.

The ambush was usually carried out over the course of one night. However, there were cases when the situation forced the units to be in

ambush without changing the area for up to three days. Within a month, the reconnaissance platoon carried out 20-25 ambushes in the battalion. However, success was achieved only with the availability of complete and reliable information about the actions of the rebels, as well as with the use of the most daring and deceitful

actions. Outposts organized along roads and on caravan routes very significantly limited the ability of the rebels to provide them with weapons and ammunition. They, of course, could not put up with this. Ensuring the escort of caravans, the dushmans blocked the outposts located near the caravan routes. Repeatedly, in particular, they made attempts to block the outpost in the area of the village of Golomund, located near the Kabul-Jalalabad road. This road was the shortest route, allowing caravans to be escorted from Pakistan to Kabul in a two-week period. Another workaround increased the delivery time of weapons, ammunition and other materiel to the rebel detachments by three to four times. Night time provided the rebels with secrecy of actions, often allowing them to escape with impunity from the fire of the units guarding the road to the mountains, to equipped caves, base villages. The actions of the dushmans were facilitated by the fact that the locations of the outposts were permanent. As a result, the oppositionists had the opportunity to identify the features of the organization of military service at the outposts, to study the terrain well and to qualitatively organize preparations for an attack on them. This required a careful organization of service at outposts, which, in terms of its effectiveness and intensity, did not differ much from active hostilities. Thus, combat practice has shown that ensuring the vital activity of entire regions and garrisons on the territory of Afghanistan was achieved primarily by reliable security, which was

provided by setting up outposts. Their correct organization gave positive results in the fight against the rebels and contributed to the achievement of security during the passage of columns, the suppression of sabotage and other enemy actions in the areas of military garrisons, airfields, power plants, mountain passes, tunnels and other important objects.

mine war

During the fighting of the Soviet troops in Afghanistan, they had to face the tactics of the enemy, largely oriented towards conducting an active mine war, as well as aimed at disrupting communications by mining and destroying road sections and road structures. In addition, the hot climate and the low water availability of the combat areas created additional difficulties in the water supply of the troops. At the same time, the almost complete absence of forests, the prevailing mountainous terrain and the poorly developed system of existing roads seriously complicated the implementation of engineering support tasks. Under these conditions, the main tasks of engineering support were: engineering reconnaissance of the enemy and the terrain; equipment and maintenance of crossings, preparation and maintenance of routes for the movement and maneuver of units; overcoming mine-explosive barriers,

blockages, destruction and ensuring the movement of troops; fortification equipment of areas and positions occupied by troops: installation of engineering barriers; extraction, water purification and equipment of water supply points. All types of troops were involved in these tasks. However, the solution of the most critical tasks and the implementation of complex engineering activities requiring special training and the use of engineering vehicles was assigned to units and subunits of engineering troops of various specialties, equipped with the necessary engineering weapons: engineering reconnaissance, engineering and road, engineering position crossing and landing, pontoon -bridge units and units

of engineering barriers, demining, water supply, etc. One of the main tasks of the engineering troops in Afghanistan was engineering reconnaissance of the terrain and especially the routes of movement of troops in order to determine the conditions for their patency, as well as to identify and eliminate various enemy mine-explosive obstacles.

engineering and sapper,

Already in the first weeks and months after the entry of formations and units of the 40th Army into Afghanistan, the main type of counteraction on the part of the rebels was the destruction of bridges, the construction of blockages and craters on difficult sections of mountain roads, the construction of anti-tank ditches and gullies, the collapse of cornices and retaining walls, and also the installation of single and groups of mines on the routes of movement of troops. During this period, the enemy used especially widely the destruction of bridges and the creation of various non-explosive obstacles.

Participants in the events note that almost all bridges in the directions of advance of the Soviet troops were destroyed. Reinforced concrete, metal and stone bridges were most often destroyed by blowing them up using explosives, gunpowder, artillery shells and mines. The undermining of the bridge elements was carried out, as a rule, in one section, which led to their partial destruction. Wooden spans were burned or dismantled, followed by sawing up of supporting structures.



A particular difficulty in overcoming the troops was caused by such a type of obstacles as the collapse of the carriageway and retaining walls on the cornices, slopes. The destruction was carried out both explosively and manually, by means of forcible mobilization of the population. The fracture sites reached a length of 10

100 m, and heights from 3 to 10 m, "surprises" were also prepared in the form of undermining the roadway or arranging "wolf pits" by covering the destroyed area with poles and earth, upon collision, on which the equipment collapsed into the abyss. The device of anti-tank ditches was carried out by explosive means or manually. Ditches 5–6 m wide and 3–5 m deep were equipped on the carriageway. As a result, after 1.5–2 days, a ravine 5–10 m wide and 3–5 m deep was formed across the road.

With the transition of the opposition forces mainly to guerrilla operations, mine warfare was given special importance by their command. For the construction of minefields, dushmans (TM-46) used personnel mines of Soviet American (M 18), English (No. 5 anti-Mk 1), Italian (TS-50), Pakistani and Chinese production. To destroy armored objects and other equipment, the rebels used anti-track mines made in the USA (M 19), England (Mk5 and Mk7), Italy (TS-2.5 and TS-6.1) and Belgium (H 55 and MZ). In addition, various improvised mines and land mines made from unexploded aerial bombs, mortar mines, artillery shells and explosive charges were widely used.

Dushmans arranged mine-explosive barriers to cover defensive positions, important military installations and supply bases, as well as to hinder the transportation of materiel along the roads and the movement of military columns. They were based on either anti-tank and anti-personnel, or mixed minefields, pockets or groups of mines. In the places abandoned by the

population (in vegetable gardens, in houses, schools, mosques and on hiking trails), the enemy planted surprise mines. Fountain pens, flashlights, books, dishes, other household items, children's toys were used for their manufacture. The rebels planted mines and land mines on the paths

of movement of troops in advance or when a column of troops approached. As a rule, holes for mines were torn off in advance, and mining roads

and terrain was carried out 0.5–1 hour before the column approached. There were cases of mining roads after the passage of reconnaissance and demining units. Therefore, it was recommended, if conditions allowed, to reduce the distances in movement between the reconnaissance and demining group and the main column of troops, ensuring visual communication between them.

The most likely places for laying mines and land mines were the entrances to settlements; cornice sections of roads that do not have a detour, ascents, descents and turns; bridges and culverts, access to water sources, fords, exits from gorges to roads; places convenient for landing helicopters, arranging halts and rest for troops; positions and trenches periodically occupied by Soviet and Afghan troops.



Anti-tank mines were installed on the roads mainly in ruts, inter-track space and on roadsides in a linear and staggered manner or haphazardly, both one at a time and in groups. Land mines were installed singly or in groups. Mines and land mines could be connected by a detonating cord or an electrical explosive network. To increase the damaging effect, two mines were sometimes installed in one hole. The depth of installation of mines and land mines from the surface of the earth ranged from 2–3 to 60 cm or more. From above, to make it difficult to detect and ensure that the pressure cover of the mine fuse was triggered, a stone or piece was laid

tree. Sometimes there were cases of installation of mines and land mines in the cracks of the roadway with an asphalt coating, less often - under the asphalt on the side of the roadbed. In most cases, the land mines were installed in the space between the tracks, and the contactors that actuated the fuse were in the tracks.

Dushmans set almost all mines on non-recoverability. Moreover, the same ammunition could have not only several ways of actuation, but also be set to be non-removable. Mines and land mines were also installed for selective destruction (depending on the type of contactors - only for tracked or wheeled vehicles), against tanks equipped with trawls, for operation after several passages of equipment (after demolition of an increased camouflage layer of earth). All mines were skillfully disguised as the surrounding background (for

example, at the site of the installation of land mines on a field road, a car ramp was driven several times, creating the appearance of a knurled track). The erected barriers, as a rule, were covered by machine-gun fire. To make it difficult to search for mines with a mine detector, false barriers

were set up and interference was created. For example, a large number of metal fragments and crushed explosive were scattered or buried in the ground. To dull the sensitivity of mine-detecting dogs, mines were tightly wrapped in plastic bags and poured with kerosene, diesel fuel, and oils. In addition, in order to make it difficult to neutralize anti-tank mines and land mines, dushmans often installed anti-personnel high-explosive and fragmentation mines of circular and directional destruction near them. Anti-personnel mines were sometimes used to reinforce non-explosive obstacles of various types. In order to alert them in order to let their equipment pass, to facilitate the search for ammunition and their removal for reuse,

dushmans in most cases marked the installation sites of mines, land mines, control lines and contactors with inconspicuous landmarks. Such landmarks could be: a broken branch or a notch on a tree trunk, scattered grain, a bunch of stones on the side of the road or near it, left on a plow field, etc. Equipment left on the road could also be a sign of mining,

hit by an explosion earlier, since single mines were placed several times on the same sections of the road.

Engineering reconnaissance was carried out by aerial photography, ground search for minefields and their direct inspection. In addition, certain information came as a result of interrogation of prisoners, defectors and interviews with local residents. Aerial reconnaissance was carried out by engineering reconnaissance patrols on helicopters

equipped with special equipment. Aerial cameras, which were part of the reconnaissance kit, made it possible to carry out planned and perspective photographing of the area at various scales. Aerial photographs were used to determine the condition of bridges and roads, the degree of their destruction, the presence of blockages, the possibility of bypassing them, and the places where minefields were installed. Direct measures for reconnaissance and neutralization of mines and land mines on the roads, restoration of the destroyed road

canvases on the march, they were carried out by engineering and sapper units of combined arms formations and units, from which they created reconnaissance and demining groups, barrier groups and road and bridge groups that are part of traffic support units (OOD). The composition and equipment of the groups were determined by the volume of tasks performed and the specific conditions of the situation.



The reconnaissance and demining groups were staffed from engineering reconnaissance, engineer-sapper and engineering road units, with the crews of the dogs of the mine detection service (MRS). The blocking group could include motorized rifle, tank and engineer-sapper units with shaped charges, explosive charges, motorized perforators, blocking engineering vehicles (IMR), tanks with bulldozer attachments. OOD, as a rule, had one or two engineer platoons with means of searching for and destroying mines; two or three crews of mine-detection service dog handlers; two or three tanks with rutted mine trawls, an engineering barrier vehicle. For cover, the group was reinforced with motorized rifle

platoon.

The movement of the personnel of the reconnaissance and demining groups was carried out on an infantry fighting vehicle, which also carried a special kit that included portable mine detectors, probes, an explosive supply and explosives. The commander of the vehicle was an officer of the engineering unit, who had experience in combat operations in the area and was well aware of the techniques and methods of mining used by the rebels. The actions of reconnaissance and demining groups were divided, as

a rule, into two stages: reconnaissance (sweeping) of roads in a mechanized way and reconnaissance on foot. When traces of mining were found on the road or when approaching a section of the road that could presumably be mined, as well as when a mine (land mine) exploded under the trawl, the reconnaissance and demining group stopped. The personnel of the engineering and sapper unit dismounted and checked the road, roadsides, ditches and exits for the presence of mines and cleared them. In carrying out the task, the reconnaissance and demining group was covered by a security unit that occupied the nearest slopes of the mountains of the dominant height.

The reconnaissance and demining of roads was carried out manually by sappers with the means of searching for and clearing mines and land mines. At a distance of 40–50 m, armored demining vehicles followed them, then tanks with BTUs and armored personnel carriers or infantry fighting vehicles. In order to ensure the continuous promotion of OOD, as a rule,

two crews stood out in the reconnaissance and demining group, which succeeded each other after the time set by the OOD commanders. The discovered mines were destroyed on the spot with overhead explosive charges or outside the carriageway, where they were removed by cats. Guided mines and land mines were neutralized by successively cutting the wires of the control line.

In general, the volume and efficiency of work on the clearance of mines by engineering troops has constantly increased. If for the whole of 1980 they neutralized 1032 mines and land mines, then only for 10 months of 1986, 35 thousand mines and 650 land mines were cleared on the account of sapper

units. An equally important task of engineering support during the combat operations of the Soviet troops in Afghanistan was the equipment and maintenance of crossings and traffic routes. Already when part of the forces of the 40th Army entered Afghanistan in 1979, the engineering troops faced the serious task of ensuring their crossing of the Amu Darya River, which had a width of up to 700 m, a depth of 0.3 to 4 m, and a flow speed of 2 m / s and more and a shallow floodplain of both banks with a width of 40 and

Based on the conditions of the situation and the characteristics of the water barrier, it was decided to equip a bridge crossing, for which five pontoon-bridge parks (PMP) were concentrated. The

building of the bridge was carried out by assembling the roadway from pontoons, which were towed by boats. The delivery of pontoons and boats across the shallow floodplain to clean water was carried out using caterpillar floating PTO transporters.



The equipment of approaches to the bridge, places for unloading boats and links of the PMP fleet was carried out in advance under the guise of construction by civil organizations. The initial bank and the island part in the axis of the bridge were lined with reinforced concrete slabs. Strengthening of the opposite bank and exits from the bridge was carried out in the course of equipping the crossing with engineering equipment transported by the first flight on barges. In addition, in order to protect the shore from erosion, at the points where the bridge mates with it, a lining from the PMP park was laid under the coastal links for their entire length. To hold the coastal sections of the bridge, screw anchors were screwed into the ground with a car winch or a tractor cable using a simple gate mounted on the platform of a

pontoon car. One of the most difficult tasks was to keep the bridge tape from drifting away. In the conditions of easily eroded soils of the river bottom, the service anchors of the river links of the PMP park showed insufficient holding power. The specially made anchors of the so-called "increased holding power" did not justify themselves. When the bottom soil was moved by the current, the anchors were periodically exposed,

the anchor ropes weakened, and their subsequent pulling up led to a constant displacement of the anchors under the bridge.

The drift of the anchors was also facilitated by a fin overhanging the anchor ropes. All this made it difficult to keep the river links on the fairway in the axis of the

bridge. Reliable retention of the river part of the bridge was achieved by replacing the anchors with links of a marine anchor chain 10–20 meters long. This method was previously widely used for anchoring barges in the Amudarya River Shipping Company. Being at the bottom, the anchor chain quickly silted up and was not washed away. In addition, on the upper side was a barge prepared for flooding. If necessary, with an increase in the speed of the current, it could be flooded and used to hold the bridge. This made it possible to hold and reliably operate the bridge at a high speed of the river.

As a result of carefully planned and carried out preparatory measures, the bridge crossing over the river. The Amu Darya was equipped with two sections of 160 and 350 m in 7 hours and 15 minutes, and the crossing of the troops took 12 hours, which predetermined the success of the operation for the rapid entry of Soviet troops into Afghanistan.

Subsequently, the erected bridge crossings constantly required protection from sabotage groups, floating mines (explosive charges) and floating objects. To this end, in the system of commandant service on the opposite bank, direct defense of the bridge crossing was organized, upper and lower river outposts were set up, a bridge guard and a duty unit were created.

For the protection and defense of the crossings, it was allocated from a reinforced motorized rifle company to a battalion. The fire system was based on a combination of flank and cross fire of small arms, artillery and infantry fighting vehicles and was linked to engineering barriers and natural obstacles. The positions of the units were carefully equipped in terms of engineering. The front line and the gaps between the positions were covered with barbed wire in combination with signal mines. One or two pontoon platoons, a motorized rifle platoon on

infantry fighting vehicles and an ATGM installation were assigned to the upper and lower river outposts.

The upper river outpost was located at a distance of up to 2–2.5 km from the bridge, and the lower one was up to 1 km. River outposts conducted round-the-clock monitoring of the water barrier, observation posts and reconnaissance patrols. At night, the booms and the surface of the water on the approaches to them were illuminated by searchlights. The created system of protection and defense of bridges ruled out cases of sabotage by the enemy.



During the years of the 40th Army's stay in Afghanistan, the engineering troops constantly had to restore roads and bridges, which were subjected to the destructive effects of not only the enemy, but also nature. Therefore, on all routes of movement of troops to duplicate bridges and overcome possible artificial and natural destruction, maneuverable road and bridge groups were created as part of road engineering companies with five MTU-20 bridge layers or heavy mechanized TMM bridges. This made it possible, in the event of the destruction of the bridge, to equip its bypass, arrange a bridge crossing, and clear the blockages of the roadway.

To allow troops to pass through the passes, road groups were created as part of the IMR, a track-laying equipment serving

passes. The main task of the groups was to clear roads on the passes from snow drifts and landslides. As a result of frequent shelling of working engineering equipment, the use of BAT track-layers, which have great vulnerability, was limited. The main work on clearing snow drifts fell on the IMR and bulldozers of the S-100 type, equipped with a makeshift armored cab.

The limited troop movement paths created large accumulations of vehicles on the roads, which contributed to the rapid destruction of the roadway. In addition, the enemy constantly created blockages of stones and overturned cars, which greatly reduced the capacity of the roads. Therefore, in the zone of responsibility of the guards of each motorized rifle regiment, traffic support units (OOD) were created and operated as part of the IMR, BAT, MTU-20 and the TMM set, which made it possible to constantly keep the path in a passable state. The preparation of tracks in the mountains in many

cases was difficult due to the insufficient scope of work. In these cases, the road units were forced to act, consistently moving from object to object, which sharply reduced the pace of restoration work. In a number of cases, transport helicopters came to the aid of the engineering troops, which were used to transfer engineering units, equipment and road and bridge structures, mechanized bridges of TMM and MTU over a considerable distance. Engineering units deployed by helicopters were equipped with DZ-42 bulldozers, GAZ SAZ-53B and GA3-66 vehicles, drilling rigs, and small-scale mechanization equipment. They had the necessary autonomy and could independently perform various engineering work simultaneously on several sections of the destroyed road.

Restoration of the destroyed bridges was of great difficulty. Sometimes it was possible to compensate for the partial destruction of the bridge by backfilling the soil. However, most often the destruction was so significant that the restoration of the bridge on the old basis in a short time became almost impossible. In these cases, it was practiced to build new bridge crossings with the help of MTU-20, TMM bridgelayers and "transition" elements.

In case of destruction of a bridge with a span of more than 20 m, it was restored using a collapsible metal bridge RMM-4.



A particular difficulty in the restoration of the road was caused by the collapse of the carriageway on the cornice section. The main way to overcome such sections was the construction of retaining walls and the widening of the carriageway by digging into the rock. The restoration of the road was carried out sequentially, in sections. When erecting retaining walls, local materials (soil, stone), earth-bearing bags, and technical fabric were widely used. For the stability of the retaining walls made of stone, they were reinforced with brushwood, metal mesh, and to fill the voids of the masonry, each layer of stone was sprinkled with soil. In a number of cases, empty boxes from under artillery shells, filled with soil or rubble, which were knocked together with nails and fastened to the ground with anchors, were also successfully used to restore retaining walls.

Restoration of retaining walls was carried out according to other design solutions. As military practice has shown, the restoration of retaining walls using gabions made of metal mesh and other high-strength flexible materials, including technical fabric, was very effective.

During the protection of road and bridge facilities (bridges, dams, tunnels, retaining walls passing through gorges), platoon strongholds usually formed the basis of defense. With their engineering equipment, the main and spare trenches were opened for motorized rifle squads, infantry fighting vehicles (APCs), attached tanks, guns and mortars, as well as small magazines for ammunition. For observation and control of the battle, a platoon commander's command observation post was equipped, dugouts (dugouts) were arranged for personnel. All erected fortifications were connected by communication lines. In unoccupied buildings located outside the stronghold at a distance of 500-1000 meters or more, observation posts were set up, for which trenches and blocked cracks were prepared, and the buildings themselves were adapted for firing.

In the fortification equipment of positions, structures made of stone rubble, clay mixed with straw or dry grass, as well as prefabricated reinforced concrete machine-gun structures of industrial production (SPS and SPSM), decommissioned infantry fighting vehicles, armored personnel carriers and tanks were widely used. In the mountains, the protective and masking properties of the terrain were used to the maximum. To create structures, large boulders, rock blocks, ledges and depressions were adapted. Structures of semi-buried and bulk types with the use of stone, earth-bearing bags and soil were widely used.

When placing a platoon stronghold near a fortress or other abandoned buildings, they were equipped with all the premises necessary for life and life, warehouses for ammunition, property and food, and the platoon commander's KNP. In the adobe fences (duvals) enclosing the yard, loopholes were arranged, and shooting cells adjacent to the walls were built from mud brick or adobe for firing along the walls and across the territory inside the yard. Closed structures were arranged on the flat roofs of buildings for firing and observation. For this, earth-bearing bags, adobe, and ammunition boxes filled with soil were used. The windows of the buildings were sealed with raw bricks. In front of the entrance to the buildings, protective walls were made of stone or brick. Around the fortress (buildings) trenches were opened for tanks, infantry fighting vehicles, armored personnel carriers, guns and -

mortars, motorized rifle squads and shelters for vehicles. (construction) The fortress fortifications and itself with connected with external communications.



During the protection and defense of airfields, troop deployment points, hydraulic structures and other important objects, the positions of motorized rifle squads and platoons reinforced with tanks, guns and mortars, which were located at a distance of 700-800 meters from each other along the perimeter of the protected object, and also on the near and far approaches to it. At the position of the detachment, sections of trenches were torn off, a trench for an infantry fighting vehicle (APC) and a dugout were arranged, interconnected by communication passages. A cellar for ammunition and a dugout for the crew adjoined the trench for the tank. The course of communication was arranged so that the crew could quickly and easily enter the tank through the lower landing hatch, without exposing themselves to the danger of falling into the enemy's fire zone. The command post of the platoon commander was equipped at the position of one of the squads and with the positions of other squads, and in a number of cases was connected by communication channels. Earthworks were carried out either by hand or, if terrain conditions allowed, using engineering equipment. In the latter case,

regimental earth-moving machines were used.

GZM-2 and trench machines BTM-Z, TMK-2 and pit machines MDK-3. The performance characteristics of earth-moving machines are given in the appendix.

In all cases, fortifications were built in such a way that they fit better into the terrain and were out of the zones of possible collapses, rockfalls, landslides, mudflows and flooding during heavy rains and floods, snow avalanches. To protect them from flooding by surface waters, upland ditches were arranged, and from sand drifts - barriers and vertical screens. Based on the means of destruction used by the rebels, the main part of the fortifications was

arranged to protect against bullets and fragments, and shelters for personnel, ammunition and fuel and lubricants were equipped to protect against a direct hit by mines and rockets. In view of the fact that the choice of local materials, as a rule, was limited to clay and stone, the protective thicknesses of structures, parapets were arranged from bags filled with soil, or stone laid dry or fastened with clay mortar. To prevent the ricochet of bullets and fragments, a parapet made of stone was sprinkled with soft soil or covered with turf.

For the installation of fortifications, the troops widely used structural elements (hulls, frames, etc.) of armored and motor vehicles that could not be repaired, boxes and metal caps from ammunition, and elements of airfield coatings. Single trenches, trenches and communication passages came off full profile. Cool clothes and protective walls of trenches for tanks, infantry fighting vehicles, armored personnel carriers and artillery located on the surface of the ground were made of bags of earth, adobe blocks, bricks, ammunition boxes, stone, etc.

To protect the personnel, covered slots of various capacities were equipped. To create them, elements of corrugated steel, boards, ammunition boxes, car frames, dump truck bodies, etc. were used. In addition, closed car bodies, armored personnel carriers and other equipment that could not be repaired were used to shelter personnel. Shelters for ammunition and fuel and lubricants were arranged in a similar way. Soil embankments were arranged to protect them from bullets and fragments.

In areas of concentration occupied in the course of combat operations, slits were widely used to protect personnel, arranged directly under military equipment, as well as protective walls made of stone. To increase the protection of personnel, walls made of clay and stone were arranged at the positions of outposts. In addition to protection from bullets and shrapnel, these walls provided covert movement of personnel during the battle. To hide the vital activity of the troops, various camouflage coverings in the form of vertical masks were widely used. Fortifications of industrial production KVS-A to KVS-U were used, as a rule, to create command posts and stacks of explosives ammunition at the points of permanent deployment of units and subunits.



The installation of minefields was one of the most important tasks of engineering support for the combat operations of a limited contingent of Soviet troops in Afghanistan. The complexity of its implementation consisted in the absence of clearly defined boundaries of areas and directions of enemy operations, as well as in the predominance

hard soils that make it difficult to install mine-explosive barriers. The decision to

use barriers to cover objects was made by the commander of the formation (unit) in whose area of responsibility these objects were located. Based on the decision of the commander, the head of the engineering service of the formation (unit) developed a plan for the construction of engineering barriers, which was approved by the higher commander. The device of

mine-explosive barriers was carried out by regular and attached engineering units and divisions. Non-staff sappers from units of military branches and special forces were also involved in the installation of mines. To mechanize the process of laying mines, trailed minelayers PMZ-4 were sometimes used. Minefields covering the positions of security

units and objects were necessarily fenced with double wire fencing and covered with fire from small arms. In order to prevent pulling off, the fences were connected to signal mines or fragmentation mines of circular destruction. To warn the personnel of the troops and the local population about the mine danger, warning signs with the inscriptions "Stop, mines" in Russian and Afghan were arranged on the wire fence or near it. To cover the objects, anti-personnel high-explosive, fragmentation mines of circular destruction and directional mines were used. The entire territory of protected

objects was fenced with a solid wire fence, and the most important of them (aircraft parking, warehouses, etc.) had additional fences. Anti-personnel minefields of fragmentation mines were installed on the inside of the facility's fence in places where a hidden approach of the enemy was possible, and signal mines were installed on the outside at a distance of 150–200 m from the fence. Sections of the external fence of the object, where minefields were not installed, were reinforced by subtle obstacles. All approaches to the object and minefields were shot through with machine-gun fire, for which closed machine-gun structures were erected.

For all installed minefields, forms were drawn up, which were sent to units and formations. Unit commanders, in addition, had diagrams showing places on them, the number of rows, distances between rows and mines, and landmarks. When conducting combat operations in the mountains,

fragmentation mines OZM-72, MON-50, anti-personnel anti-personnel high-explosive mines of the PMN type and various booby traps were also widely used. At the same time, the most widely used method of installing anti-personnel barriers in the gorges on the reconnoitered or suspected routes of movement of the rebels and caravans. At the same time, roads, paths, dried up riverbeds, mountain passes, and other places convenient for the movement of rebels, motor vehicles and horse-drawn vehicles were mined. In a desert area, where the enemy's opportunities for maneuver are much

wider, minefields of great length were mainly laid and, much less often, groups of mines.



When solving the tasks of mining road and bridge structures, anti-vehicle and anti-tank mines were used. The high efficiency of the use of cost centers was achieved in ambush actions when installing controlled minefields. Such barriers were most often used in the conduct of hostilities by special forces. When organizing ambushes, minefields were set up in places where bandits were likely to move: at the intersection of several routes, not

having a bypass of natural barriers, at the entrance (exit) from the gorge and on the descent (ascent) from the passes and other places. For mining, anti-personnel mines of high-explosive and fragmentation destruction, circular and directional action in a controlled version were used. They settled at the entrances, exits and in the ambush zone itself, as well as on the paths of the rebels' possible exit from the shelling. The installation of mines was carried out at safe distances from cover positions (explosion control points) and at a range of visual and optical visibility, providing cover with automatic machine-gun fire. In most cases, mine-

explosive barriers were arranged manually. The laying of minefields by remote means (aircraft and artillery) was most often carried out during combat operations on reliably explored enemy movement routes, as well as on hard-to-reach mountain passes. When installing minefields covering strongholds, protected objects and areas of deployment of Soviet

troops, all ammunition was arranged in an unrecoverable position using booby traps. When mining areas of hostilities, where civilians could subsequently end up, in all cases, mines were installed with elements of self-destruction.

The most important tasks of the engineering troops in Afghanistan were the extraction, purification of water and the equipment of water supply points. In everyday life, the troops were provided with water from water supply points deployed at underground water sources (stationary wells, wells), as well as at karezes and open water sources. The nature and number of water supply points,

equipped in formations, units and subunits, were mainly determined by the disposition of troops and the water supply of the areas. Water supply points were equipped with the use of personnel

funds. So, for example, with the entry of our troops into Afghanistan, they were provided with water exclusively through the use of MAFS automobile filtering stations and TUV-200 fabric-carbon filters. Only a few garrisons used existing wells at local industries with

obligatory chlorination of water. In the future, wells began to be drilled in the areas where the troops were located. In total, about 180 wells were equipped on the territory of Afghanistan with a total flow rate of 60 thousand cubic meters. m per day.

The location of the water supply point was chosen taking into account the sanitary and epidemic state of the area, the productivity of the source and the quality of the water in it, the possibility of infection with pathogenic microbes, as well as the conditions of protection, defense and camouflage. The maintenance of the water supply point was carried out by regular calculations of field water supply facilities, and security and defense - by motorized rifle units.

In the points of permanent deployment, the provision of troops with water was organized according to a centralized scheme, providing for the delivery of water to the water points of the units.

The rear must always be reliable

The presence of a limited contingent of Soviet troops in Afghanistan and their conduct of hostilities in that country required increased technical and logistical support. This was mainly due to the lack of material and technical base in Afghanistan necessary to meet the needs of the troops of the 40th Army. As a result, the technical and logistic support of formations and units was carried out directly from the territory of the Soviet Union and was associated with great difficulties.

The technical support of the Soviet troops in Afghanistan included all its main elements: acquisition of weapons and equipment; technical and tactical-special training of personnel; provision of ammunition; operation, repair, evacuation of weapons and equipment; provision of military-technical property; technical support management. However, the specific content of technical support measures was determined by the disposition of troops, the characteristics of the theater of operations and armed struggle. The large dispersal of troops over vast areas in numerous garrisons of various sizes, from a platoon to several units, had a serious impact on the technical support. A characteristic feature for the entire contingent of Soviet troops can be the location of one of the motorized rifle formations, dispersed over an area of 380x120 km in almost 70 garrisons, of which about 60 were strong points on communications. The strongholds were located at a mutual distance of 2-7 km along the routes and included, as a rule, a motorized rifle platoon, in some cases a tank platoon, sometimes reinforced with a mortar platoon or other fire weapons. On the whole, dispersal of up to 40–60% of military equipment over strong points for the protection of communications, pipelines, and deployment points was typical for most units and formations.

The dispersal of such a significant part of weapons and equipment among small garrisons was aggravated by the difficulty of communication between them, primarily due to the constant threat of exposure

enemy. The rest of the military equipment was periodically involved in the conduct of hostilities, was used to escort transport convoys, etc. actions. Groupings of troops

for conducting combat operations were in fact consolidated formations of various composition - from one to two or three incomplete motorized rifle regiments with the involvement of units and subunits of military branches and special troops of divisional and army subordination. Tank subunits were involved directly in combat operations in limited numbers. In this regard, weapons and equipment were withdrawn not in full-time, in various combinations according to the types of troops and special troops.

The autonomy of the actions of the created groupings of troops on the territory, as a rule, controlled by the enemy, had a fundamental influence on the technical support. Private

combat operations (on the scale of formations and units) were carried out within a radius of 10-16 km to 100 km, and sometimes more from permanent deployment points, as a rule, in hard-to-reach areas. The spatial scope and removal of combat areas of troops in army-scale operations could be much larger. Isolation from the points of permanent deployment with the constant threat of the enemy's influence on communications determined the need for the maximum possible autonomy of the grouping of troops in the course of hostilities. This also necessitated the creation of appropriate autonomous groupings of forces and means of technical support capable of working for a sufficiently long time in isolation from stationary supply and repair agencies.



The autonomy of combat operations posed a particularly acute problem of the protection and defense of technical support bodies, their survivability in most cases was the determining factor in choosing the methods of using technical support forces and means, often to the detriment of technological productivity. The technical support system was completely built on its own strengths and means, local resources and industrial base did not

were used.

The basic principle of providing ammunition in the course of hostilities was to create the maximum possible autonomy of the respective groupings of troops for the entire period of planned hostilities. The supply of ammunition necessary to ensure the autonomy of a grouping of troops was determined by the planned duration of hostilities (operations) and the consumption of ammunition. The duration of private hostilities averaged 5-10 days; operations carried out on an army scale

lasted 10–20 days. Ammunition consumption fluctuated widely. We can only talk about average values that do not reflect the specifics of each operation. In a number

cases, the average sustained consumption of ammunition for infantry fighting vehicles, armored personnel carriers, artillery, small arms was 2.2–0.4 ammunition units

(BC). The requirement for the autonomy of groupings of troops necessitated the advance creation of additional imported ammunition at all levels, starting with the soldier and crew. Each shooter, as a rule, received two rounds of ammunition for the machine gun. In addition, for the needs of the landing force, an additional 2–3 boxes of ammunition, 1–2 boxes of ammunition for hand grenade launchers, were placed in each infantry fighting vehicle (APC). For the main armament of armored personnel carriers and infantry fighting vehicles (30 mm cannon, 14.5 mm machine gun), additional stocks of ammunition were created in the range of 0.5–1 bq. Ammunition boxes were stacked along the sides of the vehicle and partially placed in the

On the transport of the battalion (artillery battalion) and the regiment, additional stocks of all types of ammunition were also created. With a significant distance of the combat area from stationary warehouses, part of the divisional stock of ammunition on the transport of the material support battalion could be withdrawn for a private operation.

Stockpiles of ammunition taken out directly with a grouping of troops did not always ensure its complete autonomy throughout the entire operation, especially lasting 10 days. Therefore, to ensure specific combat operations, additional stocks of ammunition were created in the stationary warehouses of those units and formations on the basis of which the grouping of troops was formed, or in any nearby warehouses. The creation of additional reserves was facilitated by the fact that units and subunits usually went into combat operations not in full combat strength. This made it possible to have an increased stock for all weapons being withdrawn. Sometimes it was practiced to pre-load these ammunition onto vehicles, which were ready to move to the combat area if necessary. In a number of cases, to ensure combat operations, a branch of an army artillery depot was created, which was deployed on

the basis of the nearest regimental or divisional depot, as a rule, near the airfield, with the involvement of army transport.

In order to provide for the entire grouping of troops in major operations, base areas were created with increased stocks of materiel, including ammunition. In one of the operations in four base areas, created on the basis of army warehouses and warehouses of three units and formations, about five ammunition sets of various ammunition were concentrated. Options for creating ammunition stocks were used depending on the situation and the nature of the operational or combat mission being solved.



Thus, the general scheme of the system for providing ammunition for the planned military operations was a combination of imported standard and additional stocks, which form the basis of the autonomy of groupings of troops, with stocks in the nearest stationary warehouses. In addition, there was a rule according to which the commanders of any nearby units were obliged to issue ammunition to the troops conducting combat operations without any additional approvals and restrictions.

Providing troops with ammunition directly in the course of hostilities was determined primarily by the specifics of the use of fire weapons. Artillery firing positions were equipped, as a rule,

near the command post for the location of transport with imported stocks of materiel. The supply of ammunition was carried out over short distances, inside the protected area, and did not cause fundamental difficulties. Motorized rifle units were

provided with ammunition depending on their combat mission. The battalion transport with stocks of ammunition could be placed in the same area with the rear of the regiment or be located with the battalion armored group. The greatest difficulty was

providing ammunition to dismounted motorized rifle units operating in isolation from their armored groups, especially in the mountains, for several days. Whenever possible, ammunition was supplied on a top-down basis - by means of a senior commander to the provided units. On terrain accessible to vehicles, two or three infantry fighting vehicles or armored personnel carriers with a supply of ammunition advanced to the dismounted motorized riflemen. For the supply of ammunition, the movement of armored groups to their dismounted units was also used. Helicopters were used to deliver ammunition on terrain inaccessible to vehicles. And only in the absence of the possibility of supplying ammunition according to the "top-down" scheme, the provision was carried out "on oneself". In this case, the dismounted personnel descended for ammunition to their combat vehicles or to transport with supplies of materiel of subunits and units.

The imported ammunition stocks of the entire active group of troops were also replenished according to one of these two schemes. In the first case, representatives of the rocket-artillery and rear services, who led their services in the grouping of troops, organized a convoy of freed motor transport, regardless of its belonging to units and subunits. To guard the column, as a rule, a motorized rifle platoon or a motorized rifle company, reinforced by sapper units, was allocated. The column was loaded with ammunition at the expense of stocks created in advance for the ongoing operation at the point of permanent deployment or at any nearby warehouse. According to the "top-down" scheme, ammunition was supplied to the

grouping of troops by transport prepared in advance at the deployment point, or, if necessary, new columns were formed.

According to this scheme, helicopters were constantly used to supply ammunition, and special support groups of various composition with motor transport and mechanization equipment were created in the warehouse for the operational loading of helicopters.



The operation of weapons and equipment in nature and conditions was fundamentally different from the operation in the Soviet Army in peacetime and during the Great Patriotic War. The main feature is the diversity in the use of weapons and equipment, the "torn" rhythm of their operation. Combat and other equipment participated in operations on average once a month. Between operations, combat units battalion and company, often suddenly, participated in various other military operations. In addition, these same units were periodically involved in escorting transport convoys. This rhythm made it difficult to create a planned system of operation.

In units and formations, annual and monthly operating plans were canceled. Instead, the regiments developed "Consolidated annual operating records", in which they only stated the consumption of resources and the change in mileage until the next repair. There was also no division of weapons and equipment into operation groups,

set for peacetime. This led to the rejection of strict rationing of resource consumption. The norms began to be conditional for armored vehicles and were used for tentative planning of its release into scheduled repairs.

The actual resource consumption of weapons and equipment fluctuated significantly and differed significantly in different units and formations according to the time of year and the scale of the operation. So, according to generalized calculations based on the results of six private operations, which lasted from 9 to 25 days each, the average daily consumption of equipment resources was: for infantry fighting vehicles - 30-50 km, for armored personnel carriers - 25-40 km, for cars - 25-60 km.

In large, long-running operations, the total resource consumption was significantly higher. Such values of resource consumption are an undoubted sign of the intensive operation of weapons and were especially intensively used by reconnaissance, most technology. motorized rifle units and subunits, as well as engineering technique troops. No less intense was the transport of army and divisional rear units and escort military equipment used for constant long marches from transshipment bases on the border with the USSR to warehouses, their branches and garrisons. The delivery distance ranged from 100 to 700 km, overcoming mountain passes and serpentines.

The armament and equipment of the units had an insignificant resource consumption during the periods of their stay on the protection of communications, pipelines, garrisons located within their areas of responsibility during patrolling.

In fact, a large resource consumption began with the arrival of equipment at the transshipment bases. Due to the lack of railways, equipment was delivered to the troops, as a rule, under its own power and immediately upon arrival at the unit required serious maintenance. Intense exploitation was complicated by climatic and physical-geographical conditions. High air heavy temperatures, high dust content, mountainous rocky soil - all this caused increased wear of almost all units and assemblies of weapons and equipment.

The chassis, the engine and its lubrication, cooling and fuel supply systems, and electrical equipment required especially great attention. There was a premature detachment of the rubber tires of the track rollers of tracked vehicles, destruction of the guide wheels, failure of the track belts, especially if the rules for their tension were violated, high dustiness and high air temperatures caused increased wear of the cylinder-piston group of engines of all types of machines, and carelessness of the personnel led to engine overheating. Under difficult conditions, diesel fuel equipment worked, which was often aggravated by difficulties in cleaning the fuel. The enemy systematically disabled the pipelines. Therefore, the fuel came contaminated and often, especially during hostilities, was refueled in vehicles without additional purification. As a result, there was a typical failure of the most complex and expensive element of the diesel fuel system - the fuel pump. Dust and high temperatures required a change in the care system for equipment, electrical equipment, electronic batteries, and radio equipment.

The operating conditions of weapons and equipment had a significant impact on the frequency and scope of maintenance. At high temperatures and high dust content in the air, the time for maintenance increased by 1.2–1.3 times compared to normal conditions. It was also necessary to take into account the fact that the total maintenance time of the subdivision's equipment is 15–26% longer than the standard maintenance time for a single facility. With a large resource consumption, the duration of work during maintenance increased significantly - up to 50% - as the overhaul run of the machines was developed. All this led to the need for a significant change in the

system of maintenance of weapons and equipment. As you know, the Soviet Army operates a preventive maintenance system. Its essence is the mandatory conduct of a certain type of service after the resource consumption established by the standards. In turn, each type of service includes a list of works regulated by the relevant manuals. For example, for an infantry fighting vehicle with a planned warning system

The following maintenance standards have been established: maintenance No. 1 (TO-1) - after 2500 km of run with a mandatory list of works of 5–6 hours of crew work; maintenance No. 2 (TO-2) - after 5000 km in the amount of 8-10 hours of work

crew.

In Afghanistan formally kept planned warning system, but it received a new content. Initially, taking into account the severe operating conditions, the frequency (frequency) of both types of maintenance was increased by 25-30%. However, this was not enough. There was a system of service, which could conditionally be called compulsory. Its essence lies in the fact that the service was not carried out after the normative, even reduced resource consumption. Mandatory maintenance was prescribed using breaks in the operation of weapons and equipment, regardless of the resource consumption. Such a system was primarily due to the virtually unplanned rhythm of the use of weapons and equipment, which was aggravated by difficult operating conditions and forced to use any opportunity to maintain reliable operation.

machines.

The change in the frequency and order of maintenance led to a change in the content of the list of works. In fact, "mixed" maintenance was often carried out, which was a set of works from various standard types of maintenance (TO-1, TO-2). The specific set of these works was determined by the operating conditions and the available opportunities.

Naturally, such a system was difficult to plan and control. The center of gravity in organization and service management has in many cases shifted to smaller units. At the same time, the flexibility of the system, its adaptability to sharply changing conditions of the situation and specific factors, was significantly increased. The system was based on work on armament and equipment in preparation for hostilities and after returning from an operation. For troops constantly participating in

hostilities, a seven-day program of preparation for operations was established, three days of which

devoted to the preparation of weapons and equipment. The program recommended an approximate list of works, the main of which were washing all filters, refueling with lubricant, adjustment, cleaning of radiators, maintenance of batteries.

A stock of operating materials was created on each machine - technical and distilled water, oil. Due to the fact that regular containers were not provided for technical and distilled water on the equipment, the machines were equipped with additional containers that were mounted on shelves or feed sheets. Machines that do not have regular oil tanks were also equipped with additional tanks. Often, one fuel tank in the landing door was used to store oil on the BMP, disconnecting it from the power system. In addition, group stocks of operational materials were created in the company and battalion.



On the basis of the preparation program for the operation, plans for the preparation of weapons and equipment were developed in units and subunits, indicating the specific performers of the specified work, the time for their implementation and the control procedure. All work in preparation for hostilities was carried out in the fleets of combat and wheeled vehicles, which were equipped to varying degrees with the necessary elements: refueling, washing, maintenance and

repair, control and technical points, etc. For the period of preparation of equipment, forces and means of repair units deployed posts for washing filters, checking and adjusting steam-air valves, checking and charging fire extinguishers, checking and adjusting fuel equipment, electric welding, and checking electrical equipment. The order of the posts was determined by the need to perform the relevant work.

The maintenance of weapons and military equipment during the hostilities was of great difficulty. Combat experience has shown the need to systematically allocate special time for servicing vehicles in long-term operations - on average, up to one day every 8-12 days, even with an insignificant resource consumption. The main purpose of such maintenance is to prevent possible malfunctions of weapons and equipment during long-term continuous operation. It was difficult to establish a typical list of

works for such a service. As a rule, it included refueling the equipment with operating materials, a thorough check and adjustment of the undercarriage components, a check of the fasteners, some other adjustment work, and a check of the batteries.

With systematic maintenance, the amount of work, as a rule, was relatively insignificant. Sometimes there was even an erroneous opinion about the uselessness of such events. However, as soon as the systematic performance of work to prevent malfunctions was violated, the output of weapons and equipment increased. In private operations lasting up to 10

days, when the problem of maintaining the reliable operation of weapons and equipment was less acute, it was also planned to systematically carry out individual maintenance work. When blocking enemy formations, in ambushes, when the personnel dismounted and acted independently, the time spent by the armored groups in the areas assigned to them was used for maintenance. Maintenance of artillery, automotive and other equipment was also carried out in the areas of their deployment and deployment - at firing positions, command posts, etc.

A difficult problem was the maintenance of weapons and equipment dispersed over numerous strongholds to protect communications, pipelines and other facilities. On equipment in strong points, charging batteries and performing other work with the of maintenance facilities and specialisms were required. To assist in the maintenance of weapons and equipment of strong points in the units, complex technical support groups were created, headed by officers of the technical

service. The groups included specialists from repair and maintenance units with mobile repair and charging stations PRSZ-70 and other mobile equipment (maintenance vehicles, tank repair shops, etc.). Periodically, usually once a month, an integrated group was sent along the route and worked in turn at the strongholds of its unit. As a rule, the group made the next movements to the next strongholds as part of guarded transport convoys.

Much attention was paid to the maintenance of equipment for the delivery of materiel, especially over long distances. Perhaps, it was here that the forced service system was implemented to the greatest extent - at transshipment bases, warehouses, in rest areas along the route, at control points. On the most critical routes (for example, Hairatan - Kabul, 500 km long), regular technical assistance points were deployed, consisting of 30-36 repair specialists and a set of a PARM-1 mobile car repair shop. Each obligatory service was carried out during the loading and unloading of materiel, as well as during scheduled stops at technical assistance points. Full maintenance of weapons and equipment after the completion of hostilities was carried out in the parks of units according to a specially developed concept. For this purpose, an approximate list of works was developed, which was called "Measures to bring weapons and equipment to a state of combat

readiness after returning to deployment points." For these events, 2-3 days were usually allocated, which, as a rule, were declared park and economic and park days,

plans were developed to bring weapons and equipment to a state of combat readiness, in a number of cases orders were issued piecemeal.

Initially, work on equipment after hostilities included full refueling, oil and coolant, unloading and delivery of unused ammunition, thorough troubleshooting and elimination of identified malfunctions. However, during the service period after the end of hostilities, it was widely practiced to carry out the entire scope of work provided for by the three-day program for preparing weapons and equipment for the operation. Often, it was postoperative maintenance that became the main element of the entire system for maintaining weapons and equipment in a combat-ready state. This was explained by the fact that for several days after returning from hostilities, most of the equipment, as a rule, was not used, while by the beginning of the preparation of the operation, a significant part of the unit often continued to perform intermediate tasks. In addition, obviously, it seemed more natural to carry out measures to restore the resource of equipment immediately after intense operation.

Considerable difficulty in the conditions of hostilities in Afghanistan was the restoration of weapons and equipment, which was one of the main sources of replenishing losses and maintaining the combat capability of the troops. Three main reasons for the release of weapons and equipment for repair were noted: combat damage, scheduled repairs after the exhaustion of the established resource, accidents and breakdowns during operation, including through the fault of personnel.

For the operations of the 2nd World War and subsequent local wars, it was predominant to go into repair for combat damage. For example, during the Great Patriotic War, the failure of tanks for technical reasons averaged 3-5% of their total number, i.e., was several times less than combat losses. For combat operations in the DRA, the opposite ratio is characteristic - the main source of failure was technical reasons (scheduled repairs, accidents and breakdowns). Even during the period of the most active hostilities of the Soviet troops (1980-1985), in the army as a whole, the ratio of failure due to technical reasons and

combat damage for various types of weapons and equipment was 10–20: 1. This was

primarily due to the extremely difficult operating conditions of weapons and equipment, as well as insufficient training of personnel. In general, domestic equipment showed high reliability, especially since the troops were equipped with serial, and not specially designed for operations in special conditions, samples. Therefore, the average daily failure of weapons and equipment during combat operations for technical reasons amounted to 1-2% of the total number of vehicles brought to the operation. The vast majority of equipment that failed for technical reasons

required current repairs with the replacement of individual components, parts and some units.



The failure of weapons and equipment due to combat damage was characterized by great unevenness. In private operations lasting 8-10 days, a grouping of troops suffered, as a rule, single losses. They averaged 4–6 units of armored vehicles, 1–2 units of artillery weapons, 2–3 vehicles, that is, 0.3–0.5% per day of the total

weapons and equipment brought to combat operations. In one of the major operations lasting more than three months, the losses amounted to 12-17%, i.e. within 0.2% per day. The nature of

combat damage was determined by the capabilities of the means of destruction. The troops suffered the main combat losses of armored vehicles from mines and land mines. This determined the high degree of damage to the machines. More than 50% of damage to armored vehicles required major repairs or could not be restored. The combat losses of automotive vehicles from hand-held anti-tank grenade launchers and small arms were somewhat smaller.

The release of weapons and equipment for scheduled repairs after the development of the established resource also had its own peculiarities. In order to increase the duration of the use of weapons and equipment and reduce the supply of new objects for some vehicles (for example, infantry fighting vehicles and armored personnel carriers), additional medium repairs were introduced. Sending for overhaul was allowed only if it was impossible to maintain their reliable operation on their own and means. Automotive equipment was also not sent for major repairs; instead, additional medium repairs were carried out with our own funds. Naturally, this increased the total number of planned medium repairs. At the same time, in

the total amount of all types of repairs, current repairs accounted for more than 95%. The organization of mass current repairs of weapons and equipment in all units of the troops, both at points of permanent deployment and in the course of hostilities, determined the maintenance of the combat capability of units and

formations. Current repairs at the points of permanent deployment were carried out according to generally accepted rules and had no significant features. The main feature of scheduled medium repairs, especially additional ones performed on a stationary basis, was that they were carried out not strictly according to standard technical conditions, but in a smaller volume, primarily with the aim of restoring the resource reserve for the main units and assemblies. In fact, a simplified technology was used, providing accelerated repair of weapons and equipment. This was justified, since there was no need to create long-term reliability of equipment, taking into account the large resource consumption and quick access to the next repair.

The most significant features were the repair and operation of weapons and equipment in the course of hostilities. Taking into account the incomplete staffing of the troops being withdrawn for combat operations, the relatively small losses of weapons and equipment, and the predominance of current repairs, subunits and units also entered the operation with an incomplete strength. The main recovery organs for the period of hostilities at all levels were temporary formations - repair and evacuation groups (REGs), created in preparation for the operation at the expense of the forces and means of repair units and units.

The lowest level in which the REG was created were motorized rifle and tank companies. Due to the lack of technical support facilities in the state of these units, the REG function was assigned to 2–3 combat vehicles, which remained in combat formations and performed combat missions, but, if necessary, were involved in solving technical support tasks. On these combat vehicles, rigid tugs and spare parts, oil and water supplies were placed in advance. The main task of the vehicles allocated to the REG company was the evacuation-towing of faulty equipment or the removal of stuck equipment. In addition, it was these vehicles that were primarily involved in the protection and defense of the repair fund of their company during its restoration or evacuation. In accordance with the tasks performed, the crews of the combat vehicles of the REG company received the necessary skills to perform them. The actions of combat vehicles in solving technical support tasks were organized by a company technician (deputy company commander for armaments).

In a motorized rifle (tank) battalion, the REG included a full-time battalion maintenance department with an MTO maintenance vehicle. If possible, the BTS-4 tank tractor was included in the REG or, in the REG of a motorized rifle battalion, an automobile tractor capable of towing infantry fighting vehicles and VTR. Sometimes the REG of the battalion was reinforced by specialists from the repair company of the regiment. For periods of independent work in isolation from combat units, the REG for protection and defense included up to a motorized rifle platoon on an infantry fighting vehicle or armored personnel carrier. The work of the REG was headed by the deputy battalion commander for the technical part (for weapons), to whom all regular and attached means, including the motorized rifle guard unit, were subordinate. IN

the tasks of the REG battalion included assisting the crews during maintenance, evacuation of faulty and stuck equipment, current repairs of weapons and equipment with the replacement of components and parts.

The regiment

created a complex REG with the inclusion of forces and means to restore all the main types of weapons and equipment brought out for the operation. To restore armored vehicles, the REG included 1-2 repair departments at the TRM-75 tank repair shops. For automotive equipment, there was usually one department at the repair and locksmith shop (MRS), for artillery weapons - a repair department at the artillery repair and locksmith shop MRS-AR. In addition, the REG included 2-3 tank and automobile tractors and 1-2 vehicles with spare parts and operating materials. The repair and evacuation group of the regiment was headed by the deputy commander of the regiment for armaments (ZKV) or the head of one of the technical services (armored, automobile, rocket and artillery weapons) or the commander, and in some cases - an officer of the repair company. For periods of independent action, the REG included up to a motorized rifle platoon for 2-3 infantry fighting vehicles or armored personnel carriers and an ambulance. In a number of cases, the head of the REG was allocated a command vehicle with communications equipment.

Thus, the REG of the regiment was a complex repair and evacuation formation capable of operating both jointly with combat units and autonomously, in isolation from them. The REG of the regiment was entrusted with the task of assisting the crews in carrying out maintenance, evacuating damaged and stuck weapons and equipment, and current repairs.

In connection, depending on the scale and remoteness of the combat area, one or two REGs were created, each of which was usually headed by an officer of a separate repair and restoration battalion. The composition of the REG was determined by the number of withdrawn equipment, the planned duration of the operation, and the distance from the points of permanent deployment. In any case, the REG of the formations had a complex composition of forces and means for the restoration of all the main types of weapons and equipment brought to combat operations.

Most often, the REG included 1-2 repair departments of tanks, infantry fighting vehicles

An armored personnel carrier, a repair department for automotive equipment, a repair department for rocket and artillery weapons, means for repairing electrical equipment, gas welding, 1–2 tank tractors, 1–2 automobile tractors, 2–3 vehicles with spare parts and operating materials. In addition, a motorized rifle unit (up to a platoon on standard military equipment), an ambulance and, if possible, a command and staff vehicle with means

connections.



The repair and evacuation groups of the formation were usually not involved in the maintenance of weapons and equipment. Their main tasks are the concentration of faulty equipment to the places of repair and under the protection of combat units, current repairs. When

conducting large-scale long-term operations, in a number of cases, army complex REGs were created, which included a repair platoon of infantry fighting vehicles, armored personnel carriers, vehicles, artillery, usually a tank repair department, 2–3 tank tractors, 2–3 automobile tractors, 1–2 trailers, vehicles with a stock of military technical equipment. In addition, mobile repair teams were trained in the army repair and restoration units,

usually for certain types of weapons and equipment that were located at the points of deployment and, if necessary, advanced to the combat area or delivered by helicopters. Thus, to ensure combat

operations - of any scale, a system of repair and evacuation bodies capable of autonomous operation, echeloned across all levels of the troops, was created.

Primary attention was paid to providing the grouping of troops with military-technical equipment. In preparation for combat operations on equipment and in all REGs, such a reserve of equipment was created that ensured autonomous operation during the entire planned period of the operation. On

each tracked vehicle, up to 210 tracks were additionally attached, and on wheeled armored personnel carriers - a spare wheel, which was not provided for by the design. In addition, on most tanks and infantry fighting vehicles, road wheels, balancers, guide wheels, and torsion bars were placed in various ratios. The total stock of automotive property in the REG of all units of the troops averaged: engines - by 4-6% of the output equipment, units - by 2%, radiators - by 8-10%, individual components and parts - by 3-5%. In

preparation for major operations, departments of warehouses or basic warehouses of military-technical equipment were created, which were deployed on the basis of stationary warehouses of units and formations closest to the area of planned hostilities. As a rule, a department of a warehouse or a base warehouse was provided with road transport and operational loading groups in readiness for the supply of equipment to the grouping of troops. In addition, the necessary measures were taken to supply military equipment by helicopters.

By the beginning of the advance of troops from the points of deployment to the combat area, the repair and evacuation groups take their places in the columns. Military equipment designed to perform the functions of a company's REG takes place in the tail of a company column, a battalion's REG - directly behind its combat units, a regiment's REG - behind the regiment's rear rear column, and a formation's REG - behind the column of the entire withdrawn group of troops. Sometimes regimental REGs also received a place behind the formation column, along with his R

allowed the creation of joint security and defense and expanded the possibilities for organizing evacuation and repairs.

When advancing along hard-to-reach mountain routes and having difficulty bypassing stopped equipment, REG vehicles, especially tractors, on the contrary, were distributed along the column of their unit or formation, which accelerated the route clearing and reduced the loss of time to resume movement. The

construction of the means of the repair and evacuation group at the beginning of the nomination was different. Most often, at the head of the REG column there was most of the tank and automobile tractors, then - repair shops, vehicles with property, an ambulance and one of the tractors. The combat unit allocated to the REG for defense and security followed at the end of the column, simultaneously performing the role of a rear marching guard.



During the advance to the combat area, the REG of all units of the troops performed the function of a technical circuit. The main tasks of the closure were to prevent the abandonment of faulty equipment on the route, to restore it, if possible, while avoiding such a lag behind the combat units, which increases the danger of a closure. It was justified

technique - although the closure, reinforced by a motorized rifle unit, is capable of fighting, it was more important to preserve the forces and means intended to maintain the combat capability of the troops.

Based on this, it was necessary to constantly seek a compromise between the desire to restore a faulty machine directly on the route and the desire not to expose the circuit to unnecessary danger. In official documents - technical support plans, orders, maintenance orders - various options for the operation of the circuit were prescribed. In a number of cases, the maximum allowable duration of the circuit in one place was indicated, for example, regimental - up to 15–20 minutes, divisional - 1 hour, while the quantitative values of the duration of work varied significantly. In some documents, on the contrary, it was directly stated: "Do not make repairs on the traffic routes." Often, senior managers did not regulate the work of the closure at all, relying on the decisions of the relevant responsible persons. In practice, the means of closing acted on the routes of advancement of groupings of troops, in accordance with the situation. In the absence of direct danger on the route, when the terrain and the situation ruled out a surprise attack, the route section was not shot through, the circuit worked for a longer time. It was not uncommon

for a convoy of troops to move slowly, with frequent stops to check and clear the route, which also allowed the closure to last longer.

In any case, the circuit stopped near the malfunctioning vehicle, regardless of its type, in full force, and the combat guards were deployed in readiness to repel the shelling. First of all, assistance was provided to the crew in attack or determining the reason for the

stop. The first task of the circuit, given the time to work on site, was to restore the mobility of the stopped machine. If it was impossible to restore the faulty machine, it was necessary to evacuate by means of a circuit to the nearest area, where its repair or security was organized.

Thus, all the means of technical support with faulty equipment entered the combat area practically together with the combat units or immediately after them. In the combat area of the REG, the companies were

located along with their unit. The repair and evacuation groups of the battalion and regiment were located and deployed, as a rule, in the same area with the command post, rear and other regimental units not directly involved in hostilities. In this case, a unified system of protection and defense of the area was organized. The length of stay in this area was different, on average - within 1-3 days, during which the REG could perform work on the restoration of equipment.

In a number of cases, the REG of the battalion was located along with the armored

group of its unit. The repair and evacuation groups of the formation were also located and deployed in the same area with the command post, rear, artillery of the division and could be engaged in the restoration of equipment on

average 2-3 days. Repair and evacuation groups in the deployment areas organized collection points for damaged vehicles (SPPM). With the joint placement in the same area of the REG of various parts of the troops, they were deployed on a joint SPPM. Naturally, SPPM, especially regimental ones, had a simplified scheme, often they were actually sites for the repair of weapons and equipment.

Equipment towed by a short circuit from the routes of advance and received from areas of direct hostilities was being restored at the SPPM. The evacuation of defective weapons and equipment to repair sites was carried out in various ways, without strict adherence to some generally accepted principles of evacuation. For example, in the general case, for armored vehicles, the principle of evacuation "on oneself" applies, i.e., vehicles are evacuated to the places of repair by means of the link of troops that performs repairs. In the specific situation of military operations in the DRA, a company technician (deputy company commander for armaments), if necessary and possible, could evacuate a regular combat

a machine is a faulty object in the REG of a battalion or regiment, i.e. "from

oneself". At the same time, in a number of cases, faulty equipment from the units was not evacuated to the SPPM, and, if appropriate and possible, repair teams were sent from the REG under guard to the area where the armored group was located. This method was used when it was impossible to evacuate or in the case when the time spent on towing a faulty car was disproportionately longer than the troubleshooting time.

In any case, with all the movements of repair and evacuation equipment inside the combat area, the requirement for their safety remained paramount. If at the beginning of the movement of the command post on the SPPM there was not fully restored equipment, measures were taken to ensure that the repair and evacuation groups in full force and the entire repair fund departed for the new area along with the command post and other units. Only when the repair fund accumulated and it was impossible to evacuate a large number of vehicles, the REGs remained in the same area to complete work with the obligatory allocation of guards from a motorized rifle platoon to a motorized rifle company. In this case, an independent system of observation, warning, security and defense was created. Technical support at the end

of hostilities and return to the points of permanent deployment was carried out in general in the same way as when advancing to the area of hostilities. The main task of technical support in this case is to "clean up" the combat area and return routes, i.e., the mandatory evacuation of the entire repair fund without exception to their deployment points, or at least to the nearest garrison or strong point. Specific features of automotive equipment of columns for the supply of material resources. Experience has shown the

practical impossibility of restoring had recovery equipment directly on the routes. At real mountain conditions, the speed of movement of columns and significant distances of delivery, the backlog of repair facilities for the restoration of faulty equipment in a short time became unacceptably large. IN

In conditions of mass transportation, it is impossible to provide protection for all repair groups stopping on the routes. Therefore, the

evacuation of motor vehicles to the nearest garrison, technical assistance point or strong point was put at the heart of the work of the means of technical support for transport convoys. Each column included a repair and evacuation group of the automobile service, consisting of an autotractor for 20–30 vehicles with rigid tugs; 2-3 reserve vehicles with a supply of automotive property, fuels and lubricants, oil, water, brake fluid. Special workshops with specialist repairmen in the REG usually did not stand out. All faulty equipment was evacuated by means of REG, with a shortage, other vehicles of the columns were used for towing. Repairs were carried out at technical assistance points and at the points of deployment of units from which the column was formed. To restore the equipment of strong points on communications, as a rule, complex technical support groups were used, systematically allocated to assist the crews of small units

dispersed along the routes. These groups included repair facilities and repair specialists with a stock of military equipment. In a number of cases, special repair and evacuation groups were formed, working in turn at strong points along the route.

The management of technical support is an integral part of command and control of troops. The basis of command and control was the commander's decision to engage in combat operations, which determined the content of technical support measures and the procedure for their implementation.



From time to time, the commanders of the army and the commanders of other units of the troops issued orders to organize technical support for a planned period of time, for example, for a month. The orders determined the main tasks of technical support, established the scope of measures to maintain the reliable operation of weapons and equipment, determined the volume and procedure for conducting technical training of personnel, stocks of ammunition, the general procedure for their supply during preparation and during combat operations, indicated the tasks for restoring weapons and equipment, provision of military-technical property, protection, defense and protection of technical support bodies, organization of technical support management.

It was these orders that formed the general basis of the organization. technical support for the planned period of time.

Also, periodically, as needed, technical support plans were developed in all levels of the troops up to the regiment inclusive for a certain period of time (usually a month) and technical support plans for a specific operation.

As administrative documents, orders or orders were issued for technical support for a planned period of time and for specific military operations.

In general, combat documents on technical support were developed in a generally accepted form and often had a simplified character; indeed, in difficult combat conditions it may not always be possible, and sometimes even necessary, to determine in advance the exact location and timing of the deployment, movement and deployment of technical support bodies and the amount of work assigned to them. Strict advance planning and order regulation of the actions of repair and evacuation means and in unpredictable conditions would inevitably come into conflict with the real situation. In many, especially private, operations, the use of equipment was of a rather uniform nature, for example, advancing, acting as part of armored groups, moving to a new area, etc. Within these actions, certain techniques and methods for solving technical support problems were developed that required creative implementation under specific conditions, rather than formal regulation. As is known, the combat actions of the grouping of troops in the operation were led by the operational group, which included the assistant head of the combat operations for

armaments. The assistants could be the heads of technical services, other officers of the regular technical support authorities, or personally the deputy commander for armaments.

The management of technical support during the hostilities was carried out from the command post, where the entire task force was located. Rear control posts were practically not created - they lost their meaning when the command post was co-located with support units and the reduced (non-regular) composition of the control bodies. Also, independent

technical support radio networks were not created. The real volume of information on technical support quite allowed its transmission in the networks of the leader of combat operations. In practice, in the form prescribed

by the relevant decrees, technical observation points (PTN of battalions and companies) were not created. The main task of the PTN is to collect initial information about the state of equipment directly during the battle. For

To perform these functions, the PTN in a "classic" battle should, as a rule, be located directly behind the battle formations of its subunits at a distance that provides constant visual communication with them. In the conditions of hostilities in the DRA, the main officials who ensure the work of the anti-tank troops - the deputy battalion commander for the technical part (for armaments), company technicians - were mainly with armored groups and directly received all the necessary information about the state of equipment. With the permission of the deputy battalion commander for the technical part (for armaments) in the area of the regiment's command post, information about the condition of the vehicles came through the commander's network. In any case, the creation of a typical PTN did not make sense, and its independent work was practically impossible due to the threat of destruction.



In general, the experience of combat operations in Afghanistan confirmed the basic principles of organizing technical support. However, their specific implementation had a number of significant features. Particularly valuable was the experience of ensuring autonomous operations of groupings of troops. The system of separation of ammunition stocks deserves close attention, starting with a single soldier and each combat vehicle. It is also necessary to study the feasibility of structural equipment of combat vehicles with devices for installing additional supplies of ammunition, water, and oil. During

combat operations, the importance of independent work of both regular repair and evacuation bodies and temporary formations such as repair and evacuation groups, which were able to operate simultaneously over large areas, increased. The flexibility of the system for maintaining weapons and military equipment has increased, while maintaining its general preventive-planning order. The requirements for the survivability of technical support organs, which in a number of cases were independent objects of enemy destruction, increased sharply. Therefore, their protection and defense became one of the important concerns of the combined arms command.

The stay of a limited contingent of Soviet troops in Afghanistan was associated with great physical and moral stress. Under these conditions, the combat readiness and combat effectiveness of formations, units and subunits was largely determined by the quality of their logistic support, which included material, commercial, household, apartment, operational and financial support for the troops. The main task of material support was to meet the

needs of the troops with fuel and lubricants, food and clothing. To solve it, the staffs of formations, units and subunits had the appropriate forces and means: in divisions - separate battalions, in regiments - separate companies, in battalions and divisions - separate platoons of material support. On their equipment were various samples of special rear equipment.

Solving the problems of material support for the troops was associated with the delivery of a large amount of various equipment, which was carried out both to the points of permanent deployment of units and subunits, and directly to the battlefield. The average daily volume of supplies was 2-3 thousand tons, of which 60-65% was fuel and lubricants, 7% ammunition, 20% food and 8-13% other cargo. Delivery of goods to consumers was carried out in stages. The vast

majority of them from the territory of the USSR were delivered by rail and water first to the transshipment bases located in Puli-Khumri and Turagundin. Then loads

were transported by road to army warehouses in Shindand and Kabul, and from there to the warehouses of formations and units. Only an insignificant part of perishable goods (5–8%) was supplied by military transport aircraft directly to the troops. Thus, in the material support of the troops, the leading role belongs to motor transport, which accounted for 75-80% of cargo transportation, excluding aviation and diesel fuel. The latter were supplied through two main pipelines laid along the routes of Hairaton, Puli-Khumri, Bagram and Turagundin-Shindand. One thread of the pipeline was constantly working to supply aviation fuel, the second - diesel. Experience in the use of road transport showed that the best results were achieved when transporting materiel in

company automobile columns over a distance of 200–250 km. The weakest link in the transport process was the loading and unloading of materiel and especially ammunition. The downtime of cars under loading and unloading reached 80% of the time they were on the voyage. These operations were dominated by manual labor.

The coordinated work of automobile convoys, cargo shipment and cargo receipt were organized in a centralized management system. It included the central control room, combat control centers, operational groups, as well as control rooms of formations and units. Up to 600 people, 90 armored personnel carriers, 20 helicopters, 140 anti-aircraft gun installations were allocated daily to guard and escort the columns. Thus, it turned out that for every 10-15 vehicles in the military rear, one armored vehicle was allocated. Such an organization of material support was unusual for the Soviet Army and required special approaches in solving specific problems. The material support of the units in preparation for hostilities was organized by the battalion

commander on the basis of the logistic support plan of the unit. This plan was communicated to the subdivisions as soon as possible. The immediate person in charge of the logistic support of the battalion was the deputy commander of the battalion for rear, in whose subordination was the material support platoon. This unit, as a rule, was located in one area, in equipped or adapted buildings or tents.

The rear equipment (special vehicles, tanks, kitchens) was kept in the park of combat vehicles in the open. The battalion's stocks of materiel were stored on cars and combat vehicles, less often in tents or caves. In order to avoid shelling from small arms by the rebels, the most favorable conditions for the location were gentle heights, mountain plateaus, reverse, leeward slopes of heights located 1.5-2 km from the nearby mountains. The preparation of the rear for the performance of tasks in the upcoming battle was carried out simultaneously with the preparation of

combat units at the points of permanent deployment, as a rule, for 10–12 days and ended 1–2 days before the departure with a drill review. During this period, the logistics units were understaffed with personnel, vehicles, equipment, property, fuel and other materiel laid down according to the timesheets, cargo was stowed on cars, combat, special and political training was conducted with personnel, maintenance and repair of automobile and other machinery and special equipment. The volume, timing and procedure for carrying out the work each time depended on the nature of the combat mission of the battalion, the state of the rear units, the availability of time for preparation, the characteristics of the terrain and the season. Measures for the preparation of the rear were carried out in accordance with the instructions of the battalion commander and under the control of the deputy battalion commander for rear, and they were carried out by the unit commanders. To the rear workers, within the limits of the necessary, tasks were brought to ensure the upcoming battle. With all the personnel of the rear units, special exercises

were conducted on actions in mountainous conditions. The material support of the battalion consisted in the timely and complete provision of units and each serviceman with everything necessary for combat and life. The main task is to ensure the successful

conduct of combat operations in any situation in order to fulfill the received combat

tasks.

To ensure uninterrupted combat operations in the battalion, increased stocks of materiel were created, constantly

replenished by delivery from the warehouses of the senior chief. They were echeloned in such a way that the combat vehicles were constantly 3-5 days of dry rations or 2-2.5 rounds of ammunition. The battalion transport transported up to 7 days of food distribution, one ammunition load, two fuel refills, as well as a supply of crackers or fresh bread for 3-5 days.



Directly, the submachine gunner could have 8 equipped magazines and up to 1000 rounds of ammunition in bulk, 4 hand grenades (two F-1, two RG-5), 4 signal rockets, 2 daily delivery of dry rations, 2 flasks of water (2.5 liters), individual first aid kit, 20 tablets of pantacid for

disinfection of water, an overcoat (jacket) and a small shovel. The total weight of such equipment reached 32–33 kg.

Due to the vulnerability of vehicles with ammunition, the creation of increased stocks during armament (putting them into tanks, infantry fighting vehicles, armored personnel carriers) became of paramount importance. Practice has shown that in the BMP it was possible to transport up to 2.5 rounds of ammunition in zinc and one round of hand grenades or one 82-mm mortar with a crew and two rounds of mines in trays. In addition, a significant part of the ammunition and property was placed outside on the armor in such a way as not to limit the use of armored vehicle landing weapons. Particular attention was paid to providing units with water. All imported and portable containers were filled with water at the rate of: one canister (20 l) and a drinking tank (10 l) for each piece of equipment

(department), a food thermos (12 l) - per platoon. Kitchen boilers, food tanks and RDV-1500 tanks were filled per company, and a tank truck (3000 l) per battalion. This was 1.5–2 daily norms. Additional reserves increased the stability of the supply of materiel and ensured the autonomy of combat operations for 10 days in the absence of regular delivery to the battalion from the warehouses of the senior commander. A battalion refueling point was created to receive and store battalion fuel supplies, deliver it to subunits and refuel vehicles with the forces

and means of the vehicle department of the logistics platoon. Fuel and lubricants were delivered to the battalion from the warehouses of the senior chief by ATMZ-4, -375 tankers. Fuels and lubricants were pumped into existing tanks and sent to companies for refueling equipment. The fuel delivered to the battalion was

stored in tankers and used up as needed. There were a number of significant features in providing the units with food. Large temperature fluctuations, a hot climate created difficult conditions for the transportation and storage of food. divisions of canned foods and food concentrates. Together with

compelled

the difficult climatic conditions and psychophysical stress required the use of fresh food for the nutrition of personnel. When providing food, the rear of the battalion sought to create a food supply that had a high calorie content and, at the same time, was easily absorbed by the body. Flour was supplied both ordinary and enriched with B vitamins, which improved the general condition of the body. Due to the lack of iodine in the water, iodized salt, sea fish (rarely), potatoes, cereals were used for cooking. To reduce the time for thermal processing of products and reduce fuel consumption, canned first, second and third courses were used, as well as food concentrates based on cereals that do not require long-term cooking.

For personnel performing tasks in isolation from their units, daily food rations "Mountain Summer" or "Mountain Winter" were prepared for issuance. These diets contained high-calorie and easily digestible foods (canned meat and meat, fruit soups with cereals, second vegetable dishes with meat), fruit and berry juices, condensed milk with sugar, fortified caramel, citric acid.

In addition, groups, crews and crews operating in isolation from the main forces of the battalion were provided with portable equipment for cooking hot food (KN-10), which consisted of a taganka with two cooking vessels, a blowtorch and kitchen utensils. All equipment was placed in a special bag with straps and in the stowed position could easily be carried like a backpack. With its help, it was possible to cook a dinner for 10 people in 30-40 minutes. The personnel of the battalion in the points of permanent deployment

ate hot food cooked in the KP-130 camp trailer kitchens, less often on stationary stoves. Isothermal containers KI-50 were used to store perishable products. In clothing provision, the difficulties lay in the continuous change in the supply standards for officers, sergeants and soldiers. In the

initial period, due to the difference in uniforms, there were large losses of command personnel. Then all military personnel began to be provided with a uniform uniform and insignia of a protective uniform.

The norms for supplying personnel have also changed, taking into account the increased wear and tear of uniforms in the mountains. And yet, until the end of the war, there were interruptions in the provision of personnel with warm special clothing (raincoats, sweaters, felt boots, padded jackets) in the highlands. The problem of mountain shoes (light, wear-resistant and protecting the ankle from injuries) has not been solved. Large temperature differences (day and night), especially in the mountains, required the provision of personnel with warm clothes even in summer conditions (sleeping bags, insulated jackets and trousers, sweaters, balaclavas) at the rate of one set for two.

Thus, the war in Afghanistan showed the need for special technical and logistical support for the limited contingent of Soviet troops operating in that country. Much was taken into account and corrected during the war, much remained unfinished. But it was on the state of the rear that the course and outcome of operations and battles, the number of casualties, and the state of health of the fighters often depended. No wonder they say that a reliable rear is a guarantee of success in battle. A lot of people in Afghanistan understood this.

Conclusion

The war for Soviet troops in Afghanistan ended with their complete withdrawal from the country on February 15, 1989. The need for this step was long overdue, but found expression only in the policy of "national reconciliation" launched by the Afghan leadership in 1986. The first practical step in this direction was the withdrawal in October 1986, six regiments from Afghanistan: a tank, two motorized rifle and three anti-aircraft regiments.

In early January 1987, the Declaration of the DRA Revolutionary Council "On National Reconciliation" was adopted, which provided for the curtailment of active hostilities - the Soviet and government troops and the settlement of the situation in the country as a result of negotiations. From that moment on, the General Staff of the Armed Forces of the USSR began planning the removal of a limited contingent of troops from the 40th Army to the territory of the Soviet Union.

The final international action in resolving the Afghan issue was the signing in Geneva on April 14, 1988, of the Agreement on Afghanistan by the foreign ministers of four interested countries: Afghanistan, Pakistan, the Soviet Union and the United States. A week before this moment, the Minister of Defense of the USSR signed a directive on the withdrawal of troops, which was to take place from May 15, 1988 to February 15, 1989. The Soviet Union fulfilled these obligations in full, the combat operations of the Soviet troops in Afghanistan were completed. The entire period of Soviet troops'

presence in Afghanistan eloquently testifies to the insufficient political support for this action on the part of the USSR government. When the Soviet Union entered the war, the top military-political leadership of the country did not take into account the historical, religious and national characteristics of Afghanistan, which then acted as the most important factors that predetermined the protracted and extremely fierce nature of the armed struggle. Now it is quite obvious that when deciding on the entry of Soviet troops into this country, they did not take into account that the people, behind whom there is a centuries-old history of struggle against various conquerors, will not be able to look at

an armed stranger, otherwise than a foreign occupier. If this alien is also not a Muslim, then religious hostility will be added to national hostility. Both of these forces were able to mobilize huge masses of people for resistance, which various conquerors could not cope with in their time and which the Soviet troops had to meet in Afghanistan.

An equally serious mistake on the part of the Soviet command was that initially a significant part of the personnel of the formations and units of the 40th Army were representatives of the Central Asian peoples (Uzbeks, Tajiks, Turkmens), who in Afghanistan are in the position of national minorities. The hopes of the command that the soldiers of these nationalities would find greater understanding among the kindred inhabitants of Afghanistan did not justify themselves. The Pashtun tribes, which have become an active link in the anti-government movement, historically have always been at enmity with the national minorities of the north, and the appearance of Uzbeks and Turkmens from a foreign country only intensified national differences, fanned the flames of the war even more, in which, in addition to the Afghans, hundreds of thousands of Soviet people were involved. In terms of its spatial scope, the number of forces and means involved, the war

in Afghanistan belongs to the category of local wars, and in terms of the nature of the use of forces and means of armed struggle, the methods of action of the troops of the parties, it is included in the number of local wars of a special group. The latter is explained by the fact that the regular formations of the Soviet and government troops, which were equipped with all types of weapons (with the exception of nuclear) and military equipment, were opposed by irregular military formations of the opposition, armed not only with new, but also outdated, mainly small arms and light artillery weapons, extremely an insignificant amount of military equipment that did not have aviation. In addition, the fighting was actually conducted throughout the country in the absence of a clearly defined front line in the form of counter-guerrilla actions by government troops and guerrilla struggle by opposition troops. All this constantly acted as the most important factor that determined the nature of the war and influenced the formation and development of the military art of the Soviet troops from the Soviet in Afghanistan.

The war in Afghanistan gave the Soviet troops, in fact, the first significant experience in the preparation and conduct of operations and battles against irregular partisan formations in mountainous desert areas. Operational art was formed in the chorus of numerous large-scale offensive operations of the troops of the 40th Army, in which formations and units of various branches of the military and special forces, as well as government troops of Afghanistan, participated. At the same time, the unification forces were advancing in a strip of up to 60 km to a depth of 220 km at an average rate of 5–6 km per day.

New in the operational art of the Soviet troops in Afghanistan were operations carried out by limited forces to solve particular operational tasks. They were prepared and carried out under the leadership of the commander and headquarters of the 40th Army, with the involvement of individual units and subunits of various branches of the armed forces and special forces, and had a smaller scope and shorter duration than large-scale operations. Despite this, their effectiveness was often quite high.

Despite a number of large-scale operations carried out, for a limited contingent of Soviet troops, the war in Afghanistan was a WAR OF TACTICS. The main basic formations that solved specific combat missions were the regiment and battalion, which, as necessary, were reinforced by units of tanks, artillery, engineering, chemical troops, and army aviation. As a result, almost every battle was of a combined arms nature and required careful and comprehensive preparation from commanders and staffs of all levels.

The peculiarities of the counter-guerrilla struggle and the difficult terrain predetermined the tactics of the Soviet troops in Afghanistan, where classical offensive and defensive battles, as a rule, were impossible. Under these conditions, the main methods of warfare were raids, blocking and combing, ambushes, as well as actions related to the wiring and escort of columns. Raid actions were the most "pure" type of offensive combat. They were carried

out by the forces of a raid detachment, consisting of one or two reinforced battalions, along a predetermined route or direction to a greater depth in order to

detection or destruction of the enemy located there. The experience of the war showed that the effectiveness of this method of combat operations was often low. In most cases, they did not lead to destruction, but to the displacement of the enemy from the areas he occupied.

A completely new method of combat operations for Soviet military art, which became widespread in Afghanistan, was blocking and combing. It was a combination of defensive and offensive actions of the troops, carried out according to a single plan with the aim of defeating the enemy in a predetermined area. To accomplish this task, significant forces were required - from five to eight motorized rifle infantry battalions, reinforced by units of tanks, artillery, engineering, chemical troops, as well as airborne and airborne assault units, combat and transport helicopters. The success of the battle was largely determined by the actions of the blocking subunits, which, if possible, suddenly blocked the most probable withdrawal routes of the enemy troops, thereby forcing the enemy to accept the battle in unfavorable conditions for him. In the event of blocking success, combing, in its preparation and conduct, was as close as possible to the classical attack on a hastily taken defense, which, as a rule, gave good results, and sometimes led to the encirclement and complete destruction of the enemy. In a number of cases, blocking and combing acted as independent methods of solving combat missions. At the same time, blocking was used to protect the most important sections of the state border

or to hold tactically important areas of the terrain and was a kind of defensive battle. It was organized for a long time (from several weeks to several months), required a lot of effort and money, but did not always lead to the desired results. The enemy, who knew the area well, as a rule, found detours, and the blocking forces suffered significant losses, being subjected to constant sudden enemy pressure in defense areas and communications. Combing as an independent method of action of the Soviet troops was carried out extremely rarely, and then only

against insignificant enemy forces, but its effectiveness was extremely low. Ambushes, as

an independent method of hostilities, were organized to carry out reconnaissance tasks, as well as to prevent the replenishment of opposition formations with personnel, weapons, ammunition, food and other materiel from neighboring states. For their implementation, it was allocated from a platoon to a battalion from the composition of motorized rifle, paratrooper or airborne assault regiments. Increased demands were placed on the training of fighters, commanders and units. The effectiveness of well-prepared ambushes was quite high. They made it possible to obtain the necessary intelligence, to control the main communications of the enemy, to inflict significant casualties and material damage. Soviet troops were forced to conduct combat operations with the enemy while escorting and escorting columns that delivered goods

for the troops and civilians from the territory of the USSR, as well as within Afghanistan itself and were the main targets for the rebels to attack. To accomplish this task, up to a motorized rifle company was allocated, which, as a rule, was reinforced by units of sappers, flamethrowers, self-propelled anti-aircraft installations and tractors. On the route, these forces closely cooperated with units of the road commandant service and combat helicopters. They entered the battle on the move, often in a tactical situation unfavorable for themselves, most often in parts. This led to significant losses of Soviet troops on the roads, predetermined the importance of these military operations in the conditions of Afghanistan. Combat operations in Afghanistan were carried out not only by motorized rifle, but also by other branches of the armed forces: artillery, tank, airborne, air assault and army aviation.

Artillery,

being the main means of fire destruction of the enemy, was widely used in all types of combat. At the same time, a large number of the most diverse systems were used, which made it possible to conduct almost all types of fire, which ensured the effective defeat of the enemy in the mountainous desert area. In addition, artillery was often used

to smoke the area and illuminate it at night. At the same time, the experience of combat operations showed the lack of training of the commanders of motorized rifle units to control the fire of the artillery attached to them.

Independent actions of units and subunits of tank troops in Afghanistan were practically not used. At the same time, tank platoons of the company constantly operated as part of motorized rifle subunits and units performing various combat missions. The units of the airborne and air assault

troops were successfully used for sudden independent actions in remote and hard-to-reach areas in order to defeat enemy military formations and bases, as well as for joint operations with motorized rifle subunits and units advancing from the front. Combat practice has shown the high efficiency of the well-prepared and skillfully carried out actions of these troops. At the same time, it revealed a number of serious shortcomings in the training and equipment of paratroopers, which negatively affected the results of their combat missions.

The difficult terrain and the guerrilla nature of the conduct of the war on the part of the enemy determined the exceptionally high role of army aviation in solving combat missions with a limited contingent of Soviet troops in Afghanistan. In addition, a complex of tasks for the technical and logistical support of the Soviet troops was assigned to it. In this regard, from the first days of the war, the helicopter became its integral attribute, a true friend of the ground forces, and often their only hope and savior. At the same time, when analyzing the combat experience gained, serious shortcomings were revealed in the preparation of aviators and the material base for operations in Afghanistan. Also, an extremely weak level of training of combined arms commanders and staffs in organizing and maintaining interaction with army aviation on the battlefield was revealed. The most important condition for

achieving success in operations and battles in Afghanistan was the combat support of the troops, among the types of which the leading place was given to reconnaissance. In the context of the counter-partisan struggle, it was not only a means of providing troops, but also a factor that determined their combat potential, ability

effectively use the possibilities of the entire available arsenal of means of armed struggle. Combat experience has shown that in preparation for operations and battles, the largest amount of intelligence came from undercover intelligence (up to 65%), and in the course of hostilities - from military intelligence (up to 40%). The most effective way of conducting military reconnaissance was ambushes, which provided 80–90% of reliable intelligence information about the enemy. In addition, reconnaissance and signal equipment, which was widely used in the mountainous desert terrain of Afghanistan, was a new effective means of reconnaissance of the enemy. And yet, the awareness of the commanders of headquarters and troops about the enemy was often insufficient, which greatly reduced the effectiveness of the combat operations of the S

An equally important type of support for the combat operations of troops in Afghanistan was engineering support. His main efforts were aimed at conducting engineering reconnaissance, overcoming enemy minefields, inflicting losses on the enemy with various engineering ammunition, and fortifying positions and areas occupied by Soviet troops. In addition, the constant tasks of the engineering units and subunits were the preparation and maintenance of thousands of kilometers of mountain roads, hundreds of bridges and crossings, as well as providing troops with water. Combat experience has shown that, in general, successfully solving all these tasks, the engineer troops constantly experienced material difficulties, which sharply reduced their potential in supporting the combat operations of the Soviet troops in Afghanistan, their daily life. The long stay of Soviet troops in Afghanistan greatly increased the role of technical and logistical support not only in solving operational combat missions, but also in the daily life of formations and units of the 40th Army. The difficult physical and geographical conditions of the host country led to increased wear and tear of weapons and military

equipment, for the timely restoration of which the necessary forces and means were not always enough. In combat conditions, the issue of evacuating damaged vehicles from the battlefield and repairing them in the field was not fully resolved.

Quite serious shortcomings were revealed in the material, especially on issues of providing Soviet troops,

food and clothing property, the types and norms of which often did not correspond to the conditions of warfare in Afghanistan. Far from being the best way, the issue of remuneration for military labor of personnel of a limited contingent of Soviet troops was resolved, which could not compensate for moral and physical injuries, and even more so the death of military personnel. Great difficulties arose

in the medical support of the troops, the tasks of which had to be solved taking into account not only the intensity and nature of hostilities, but also the exceptionally difficult sanitary and epidemiological situation in the country. As a result, there were frequent cases when, as a result of intense battles, the number of patients in units and subunits significantly exceeded the number of wounded. Afghanistan did not pass without a trace for

the Soviet people and its Armed Forces. Through the crucible of war, as part of a limited contingent of troops of the 40th Army and the Soviet apparatus, 525.5 thousand officers, sergeants, soldiers, workers and employees of the Soviet Army passed. Great were the losses in the ranks of the Soviet troops. As of February 15, 1989, they amounted to 13,833 killed and died of wounds, 49,985 wounded and 311 missing. Thus, every eighth soldier who visited Afghanistan died, was injured or went missing.

Of particular interest is the quantitative and qualitative analysis of losses, reflecting the specifics of the conduct of hostilities in various years of the war in Afghanistan (table).

As the data in the table show, the greatest losses of the Soviet troops occurred in 1980-1985. (an average of about 8240 people per year). Subsequently, they decrease by 2-3 times. However, the most significant losses were in the first days of commissioning. So, if in the most difficult year of 1984, the troops of the 40th Army daily lost an average of 26 people killed and wounded, then in the period from December 26 to December 31, 1979, the losses averaged 69 people per day.

The specific conditions of the war in Afghanistan in the total mass of the dead predetermined a relatively high percentage of non-combat losses, as well as losses among the officers (table).

From the presented statistics it can be seen that the non-combat losses of Soviet troops in Afghanistan averaged 17.7%, that is

in fact, every fifth or sixth serviceman of the total number of dead died not from enemy influence, but as a result of illness, accidents or other circumstances not related to being on the battlefield. However, during the course of the war, the percentage of these losses somewhat decreased. So, if in the period from 1917 to 1983 the share of non-combatants on average accounted for up to 20% of the annual losses of personnel, then in 1984–1988. their share decreases to an average of 16% per year. The

losses of the officers of the 40th Army averaged 14.3% of all Soviet servicemen who died in this war and, in contrast to the losses among the sergeants and privates, had a constant, pronounced upward trend. So, if their share in the total mass of dead soldiers in 1979-1985. averaged 13.4%, then in subsequent years it rose to 17%. And yet, despite political failures and significant military losses, the war in

Afghanistan clearly demonstrated the high morale and combat qualities of Soviet soldiers, thousands of whom showed examples of courage and courage. Evidence of this are their military awards. During the period from 1979 to 1989, 76 Soviet servicemen were

awarded the title of Hero of the Soviet Union, 103 were awarded the Order of Lenin, 1972 - the Order of the Red Banner, 52,520 - the Order of the Red Star, several tens of thousands - other orders of the USSR. In total, more than 196 thousand soldiers, sergeants, warrant officers, officers and generals were awarded orders and medals of the Soviet Union during this time. In general, the participation of a limited contingent of Soviet troops in the war in Afghanistan should be regarded as a gross

mistake of the Soviet government. For a whole decade, the country and people were drawn into an exhausting and hopeless war, which required a lot of forces and means, giving practically nothing in return. As a result, irreparable damage was done to the existing state system, the final of which was the collapse of the Soviet Union. A little time passed, and US troops were introduced into Afghanistan. The country, exhausted by the bloody multi-year war, became prey

another state. The Americans remain in Afghanistan at the present time, having creatively studied and used the experience of the war of the Soviet troops in this country. History knows no subjunctive moods, but it is not deprived of the opportunity to draw instructive conclusions and learn lessons. The Afghan war taught so many lessons that it will take more than one generation to comprehend them.

Applications

Annex 1

CHARACTERISTICS OF THE SMALL ARMS IN SERVICE OF THE GOVERNMENT OPPOSITION

WEAPONS, STR

Наименование, принадлеж- ность, год принятия на вооружение	Масса, кг	Прицельная дальность, м	Начальная скорость пули, м/сек.	Темп стрельбы, выстр./мин.
ПУЛЕМЕТЫ				
12,7-мм пулемет ДШК, Китай, 1963	18,1	1800	900	450
РПК, Китай, 1970	6,3	1000	810	600
АВТОМАТЫ				
АК, Китай, 1964	4,7	800	730	600
«Узи», Израиль, 1954	3,5	200	420	600
ВИНТОВКИ И КАРАБИНЫ				
5,56-мм М 16, США, 1963	3,18	500	990	700—950
7,62-мм БУР, Англия, 1912	6,7	1500	1100	10

Appendix 2

CHARACTERISTIC Systems Used by the Government Opposition Forces

Anti-Aircraft Missile

Наименование, страна-разработчик, год принятия на вооружение	Стартовый вес, кг	Высота поражения цели, км максим./миним.	Вероятность поражения цели одной ракетой	Максимальная скорость цели, м/сек.	Время развращения мин	Дальность стрельбы максим./миним.
«Стрела-2», Китай, 1970	9,6	1,5/0,01	0,2—0,4	220	0,5	3/0,5
«Блоупайп», Англия, 1972	11,2	1,8/0,01	0,3—0,5	220	0,5	4/0,5
«Стингер», США, 1978	10	3,5/0,03	0,3—0,5	340	0,5	5,5/0,5
«Джавемен», Англия, 1985	12,4	2/0,01	0,3—0,5	220	0,5	5,5/0,3

CHARACTERISTIC ANTI-AIRCAST AND ARTILLERY SYSTEMS SERVED BY THE GOVERNMENT OPPOSITION FORCES

Наименование, страна-разработчик, год принятия на вооружение	Вес в боевом положении, кг	Начальная скорость снаряда, м/сек.	Эффективная наклонная дальность стрельбы по воздушным целям, м	Боекомплект
14,5-мм зенитная горная установка (ЗГУ), Китай	325	950	1200	2000
23-мм ЗУ-2, Китай	440	1150	1800	1800
20-мм ЗП «Эрликон», Швейцария	383	1100	1500	1500

CHARACTERISTICS OF THE BARREL ARTILLERY, CONSISTED OF THE FORCES OF THE GOVERNMENT OPPOSITION

Наименование, принадлежность	Вес, кг	Дальность стрельбы, м	Скоро-стрельность выстр./мин	Боекомплект, шт.
60-мм миномет	38	1500	15	120
82-мм миномет	60	3040	15	120
76-мм горная пушка	1125	13300	10	140
16-ствольная реактивная пусковая установка	450	9800	—	80
Характеристика противотанковых средств				
РПГ-2, Китай	3,2	150	2—3	6
106-мм безоткатное орудие, США	219	1100	5—10	60

Appendix 4

TACTICAL AND TECHNICAL CHARACTERISTICS OF ANTI-TANK MINES IN SERVICE OF GOVERNMENT OPPOSITION FORCES

Основные характеристики	США	Великобритания		Италия		Бельгия	
	М 19	МК 5	МК 7	Т-2,5	Т-6,1	Н 55	М 3
Масса мины (кг)	12,7	5,4	13,6	3,56	9,8	7,3	6,8
Масса ВВ (кг)	9,5	3,6	9,1	2,09	6,0	5,5	6,0
Тип ВВ	В	Тротил	Тротил	В	В	В	Триален
Размеры: (мм)							
длина	330	Ø203	Ø203	Ø206	Ø270	Ø280	220
ширина	330	—	—	—	—	—	220
высота	76	100	127	110	180	130	130
Тип взрывателя	Механический			Пневматический			Механич.
Усиление срабатывания (кг)	160–225	150–200	180	180–210	180–240	200	250
Материал корпуса	Пластмасса	Сталь	Сталь	Пластмасса			
Обнаруживаемость индукционным миноискателем	Не обнаруж.	Обнаруживается		Не обнаружив.		„	
Оснащенность элементами неизвлекаемости	Оснащена					Не оснащена	

Appendix 5

TACTICAL AND TECHNICAL CHARACTERISTICS OF ANTI-PERSONNEL MINES IN SERVICE OF GOVERNMENT OPPOSITION FORCES

Основные характеристики	США М 18 (Клеймор)	Великобритания № 5 Mk 1	Италия Т-50
Тип мины	Осколочная направленного действия	Фугасная	Фугасная
Масса, общая, кг	1,6	0,23	0,2
Масса ВВ, кг	0,68	0,2	0,05
Тип ВВ	С 4	Тротил	Тротил
Размеры, мм		„	
диаметр	216Ч35	50	90
высота	83	90	45
Тип взрывателя	Механический, подрывная машина	Нажимного действия	Пневматический
Радиус поражения (м)	50	На месте	На месте
Усилия срабатывания (кг)	—	2,7—54	12
Материал корпуса	Пластмасса	Картон	Пластмасса
Способ установки	Вручную	Вручную	Механизированный
Обнаруживаемость индукционным миноискателем	Не обнаруживается	Не обнаруживается	Не обнаруживается

Appendix 6

IRREVOCABLE LOSS OF WEAPONS AND EQUIPMENT OKSV FOR 1980–1987

Годы	Общее количество (чел.)	Распределение потерь в процентах		
		от подрыва на минах	от огня ПТС	от огня стрелкового оружия
1980	1216	42	22	36
1981	2491	51	29	20
1982	1548	48	25	27
1983	1309	46	24	30
1984	1312	59	19	22
1985	1463	59	20	21
1986	1792	51	39	10
1987	896	48	40	12
ИТОГО	12024	51	27	22

Taken into account: armored personnel carriers, infantry fighting vehicles, armored personnel carriers and other equipment based on them, vehicles of all brands, air defense systems, rocket, artillery and anti-aircraft weapons.

Appendix 7

CHARACTERISTICS OF PERSONAL LOSSES DEAD IN AFGHANISTAN FROM DECEMBER 26, 1979 TO FEBRUARY 15, 1989

Годы	Небоевые потери		Потери офицерского состава	
	Всего	Процент от общего коли- чества	Всего	Процент от общего количе- ства
1979	16	18,6	10	11,6
1980	255	17,2	199	13,5
1981	265	20,7	189	14,6
1982	325	16,7	238	12,2
1983	389	26,9	210	14,5
1984	283	12,1	305	13,0
1985	316	16,9	273	14,6
1986	265	19,9	216	16,2
1987	211	17,4	212	17,4
1988	120	15,8	117	15,4
1989	7	13,2	10	18,8
ИТОГО	2452	17,7	1979	14,3

Annex 8

**CHARACTERISTICS OF PERSONNEL LOSSES OF A LIMITED
CONTINGENT OF SOVIET TROOPS IN AFGHANISTAN IN THE
PERIOD FROM DECEMBER 26, 1979 TO FEBRUARY 15, 1989**

ВСЕГО	Убитыми, умершими от ран и болезней							Ранеными	Пропавшими без вести	ИТОГО
	Боевые потери		Небоевые потери		ВСЕГО	в т.ч. офиц. состав				
	Всего	В % от общего кол-ва	Всего	В % от общего кол-ва		Всего	В % от общего кол-ва			
1979	70	81,4	16	18,6	86	10	11,6	328		414
1980	1229	82,8	255	17,2	1484	199	13,5	6485		7969
1981	1033	79,3	265	20,7	1298	189	14,6	5479		6777
1982	1623	83,3	325	16,7	1948	238	12,2	7347		9295
1983	1057	73,1	389	26,9	1446	210	14,5	6254		7700
1984	2060	87,9	283	12,2	2343	305	13,0	7143		4486
1985	1552	83,1	316	16,9	1868	273	14,6	6338		8206
1986	1068	80,1	265	19,9	1333	216	16,2	4286		5619
1987	1004	82,6	211	17,4	1215	212	17,4	3667		4882
1988	639	84,2	120	15,8	759	117	15,4	2475		3234
1989	46	86,2	7	13,2	53	10	18,8	183		236
ИТОГО	11381	82,3	2452	17,7	13833	1979	14,3	49985	311	64129

Annex 9

NUMBER OF AWARDS BY CATEGORY OF MILITARY PERSONNEL AND BY TYPE OF ARMED FORCES FROM DECEMBER 26, 1979 TO FEBRUARY 15, 1989

From 1980 to May 1991, 202,356 people were awarded by decrees of the Presidium of the Supreme Soviet and the President of the USSR, of which 11,704 people were awarded posthumously.

75,372 people were awarded orders of the USSR, 126,912 people were awarded medals of the USSR.

Award categories:

generals - 337, including posthumously - 1
officers - 66,604, including posthumously - 672
ensigns - 19,394, including posthumously - 433
soldiers and sergeants of military service - 11,331, including posthumously - 9572
employees of the Soviet Army - 2690, including posthumously - 25 including women - 1382

By type of Armed Forces:

Ground Forces - 132,364 Air Force
- 31,093 Airborne Forces - 28,863
General Staff of the USSR Armed Forces -
754 Main Military-Political Directorate of
the USSR Armed Forces - 28 Other organizations - 9254

<i>Annex 10</i>

**SUMMARY CHARACTERISTICS OF THE HEROES OF THE SOVIET
UNION FOR THE PERIOD 12/26/79 - 15/2/89**

By military rank:

Marshal of the Soviet Union - 1
Army General - 2
Colonel General - 1
Lieutenant General - 1
Major General - 2
Colonels - 7
Lieutenant Colonels - 11
Majors - 8
Captains - 10
Senior Lieutenants - 10
Lieutenants - 5
Sergeants and privates - 15

By nationality

Russians - 51
Ukrainians - 11
Belarusians - 3
Ingush - 1

Kazakhs - 1
Kalmyks - 1
Lezgins - 1
Moldavians - 1
Tajiks - 1
Tatars - 1
Uzbeks - 1
- 1

By positions:

First Deputy Minister of Defense of the USSR - 1
First Deputy Chief of the General Staff - 2
Deputy Head of the GRU - 1
General Staff - 1
Commander of the Turkestan Military District - 1
Commander of the 40th Army - 1
Deputy Commander of the Air Force of the 40th Army - 1
Commander of the Airborne Division — 2
Regiment Commander — 8
Deputy Regiment Commander — 2
Senior Pilot Inspector — 1
Regimental Level Officers — 7
Battalion, Division, Squadron Commanders — 16
Company, Battery, Aviation Commanders and their deputies — 13
Platoon Commanders — 2
Urgent Soldiers and Sergeants services - 15

<i>Appendix 11</i>

**SUMMARY TABLE OF AWARDS BY TYPE OF AWARDS FOR THE
PERIOD 12/26/79 - 02/15/89**

ГОДЫ	Ордена										Медали				
	Ленина	Октябрь- ской Рево- люции	Суворова I ст.	Кутузова I ст.	Красного Знамени	Трудового Кр. Зн.	Красной Звезды	«За службу Родине в ВС СССР»			«Знак Почета»	«За отвагу»	«За боевые заслуги»	«За трудо- вую добл.»	«За труд- отличие»
								I ст.	II ст.	III ст.					
1980	24	5			160		1502			447		1058	1626		
1981	2				62		2696		1	375	4	1826	2125	4	3
1982	11	10	1	1	150	1	4783		2	1255		4279	4711	16	10
1983	5				104		3458		2	1062		3410	4480	23	4
1984	7				162		4645	1	11	2367	9	4420	5294	30	16
1985	12				249		7357		7	2309	15	6280	8247	102	24
1986	13				242		5274		7	2115	12	5282	6494	80	47
1987	6				252		5033		6	3128	22	6225	9698	132	100
1988	14				361		8562		25	3953	28	9344	18444	345	227
1989	8				230	2	7835		53	3565	23	6339	14584	452	385
1990	1				20		1001		3	120	1	197	427	4	3
1991					12		241		1	45	5	30	91		
ВСЕГО	103	15	1	1	2004	3	53287	1	118	20741	119	48690	76221	1188	819

Appendix 12

HEROES OF THE SOVIET UNION, awarded this title for providing international assistance to the Republic of Afghanistan in the period 12/26/79 - 02/15/89

№ п/п	Воинское звание	Фамилия, имя, отчество	Дата рождения	Национальность	Вид ВС	Дата гибели	Дата указа	Примечание
1	Старший лейтенант	АКРАМОВ Наби Махматжанович	17.07.1957	таджик	СВ		5.07.1982	
2	Младший сержант	МЕКСАНДРОВ Вячеслав Александрович	4.02.1968	русский	ВДВ	7.01.1988	28.06.1988	Посмертно
3	Рядовой	АНФИНОГЕНОВ Николай Яковлевич	29.09.1963	русский	СВ	12.09.1983	15.11.1983	Посмертно
4	Рядовой	АРСЕНОВ Валерий Викторович	24.06.1966	русский	СВ	28.02.1986	10.11.1986	Посмертно
5	Капитан	АУШЕВ Руслан Султанович	29.10.1954	Ингуш	СВ		7.05.1982	
6	Генерал армии	АХРОМЕЕВ Сергей Федорович	5.05.1923	русский	ГШ ВС	24.08.1991	7.05.1982	
7	Подполковник	БУРКОВ Валерий Анатольевич	26.04.1957	русский	ВВС		17.10.1991	
8	Генерал армии	ВАРЕННИКОВ Валентин Иванович	15.12.1923	русский	ГШ ВС		3.03.1988	
9	Подполковник	ВОСТРОТИН Валерий Александрович	20.11.1952	русский	ВДВ		6.01.1988	П

10	Подполковник	ВЫСОЦКИЙ Евгений Васильевич	4.04.1947	русский	СВ		20.09.1982	
11	Майор	ГАЙНУТДИНОВ Вячеслав Карибулович	6.11.1947	татарин	ВВС	17.08.1980	28.04.1980	Посмертно
12	Полковник	ГОЛОВАНОВ Александр Сергеевич	28.09.1946	русский	ВВС	1.02.1989	16.06.1989	Посмертно
13	Старший лейтенант	ГОНЧАРЕНКО Владислав Федорович	15.01.1962	украинец	ВВС		28.09.1987	
14	Капитан	ГОРОШКО Ярослав Павлович	4.10.1957	украинец	СВ		5.05.1968	
15	Генерал-майор	ГРАЧЕВ Павел Сергеевич	1.01.1948	русский	ВДВ		5.05.1988	
16	Капитан	ГРИНЧАК Валерий Иванович	21.06.1957	украинец	СВ		18.02.1985	
17	Генерал-лейтенант	ГРОМОВ Борис Всеволодович	7.11.1943	русский	СВ		3.03.1968	
18	Капитан	ГУЩИН Сергей Николаевич	9.03.1960	русский	СВ		10.04.1989	
19	Лейтенант	ДЕМАКОВ Александр Иванович	6.08.1960	русский	СВ	21.04.1982	5.07.1882	Посмертно
20	Лейтенант	ДЕМЧЕНКО Георгий Александрович	2.08.1959	русский	СВ	16.05.1963	15.11.1983	Посмертно

22	Старший лейтенант	ЗАПОРОЖАН Игорь Владимирович	24.11.1959	русский	СВ		13.08.1984	
23	Подполковник	ЗЕЛЯКОВ Евгений Иванович	1.03.1947	русский	ВВС		7.05.1982	
24	Рядовой	ИГОЛЬЧЕНКО Сергей Викторович	4.07.1966	русский	СВ		3.03.1988	
25	Сержант	ИСРАФИЛОВ Абас Исламович	1960	лезгин	ВДВ	26.10.1981	26.12.1990	Посмертно
26	Младший сержант	ИСЛАМОВ Юрий Берикович	5.04.1968	узбек	СВ	31.10.1987	3.03.1968	Посмертно
27	Майор	КОВАЛЕВ Владимир Александрович	30.03.1950	русский	ВВС	21.12.1987	29.07.1988	Посмертно
28	Подполковник	КОВАЛЕВ Николай Иванович	8.04.1949	русский	ВВС	1.06.1985	5.02.1986	Посмертно
29	Старший лейтенант	КОЗЛОВ Сергей Павлович	16.01.1952	русский	СВ		28.04.1980	
30	Полковник	КОЛЕСНИК Василий Васильевич	15.12.1935	украинец	ГШ ВС		28.04.1980	
31	Ефрейтор	КОРЯВИН Александр Владимирович	26.06.1965	русский	ВДВ	23.05.1935	25.10.1985	Посмертно

32	Полковник	КОТ Виктор Севастьянович	8.11.1940	украинец	ВВС		20.09.1982	
33	Капитан	КРАВЧЕНКО Николай Васильевич	9.10.1952	русский	ВДВ		27.09.1984	
34	Сержант	КРЕМЕНИШ Николай Иванович	4.04.1967	русский	СВ		5.05.1988	
35	Лейтенант	КУЗНЕЦОВ Николай Анатольевич	29.06.1962	русский	СВ	23.04.1985	21.11.1985	Посмертно
36	Подполковник	КУЗНЕЦОВ Юрий Викторович	24.06.1946	русский	ВДВ		5.07.1982	
37	Капитан	КУЧЕРЕНКО Владимир Анатольевич	5.05.1954	украинец	ВВС		26.05.1986	
38	Капитан	КУЧКИН Геннадий Павлович	5.02.1954	русский	СВ		3.03.1983	
39	Подполковник	ЛЕВЧЕНКО Анатолий Николаевич	6.02.1947	русский	ВВС	27.12.1985	26.05.1986	Посмертно
40	Капитан	МАЙДАНОВ Николай Саинович	7.02.1956	казах	ВВС		29.07.1988	
41	Генерал-полковник	МАКСИМОВ Юрий Павлович	30.06.1924	русский	СВ		5.07.1982	
42	Майор	МАЛЫШЕВ Николай Иванович	22.11.1949	русский	ВВС		13.01.1987	

43	Рядовой	МЕЛЬНИКОВ Андрей Александрович	11.04.1968	белорус	ВДВ	8.01.1988	28.06.1988	Посмертно
44	Сержант	МИРОЛЮБОВ Юрий Николаевич	8.05.1967	русский	СВ		5.05.1988	
45	Старший сержант	МИРОНЕНКО Александр Григорьевич	20.10.1959	русский	СВ	20.02.1980	28.04.1980	Посмертно
46	Полковник	НЕВЕРОВ Владимир Лаврентьевич	4.05.1945	русский	СВ		17.02.1984	
47	Старший лейтенант	ОНИЩИК Олег Петрович	12.08.1961	украинец	СВ	31.10.1987	5.05.1988	Посмертно
48	Майор	ОПАРИН Александр Яковлевич	28.02.1943	русский	СВ	17.05.1982	20.09.1982	Посмертно
49	Подполковник	ОЧИРОВ Валерий Николаевич	22.03.1951	калмык	ВВС		21.02.1985	
50	Полковник	ПАВЛОВ Виталий Егорович	21.10.1944	русский	ВВС		3.03.1983	
51	Старший лейтенант	ПАВЛЮКОВ Константин Григорьевич	2.08.1963	русский	ВВС	21.01.1987	28.09.1987	Посмертно
52	Майор	ПИМЕНОВ Василий Васильевич	27.03.1954	русский	ВДВ		13.06.1984	
53	Подполковник	ПИСЬМЕННЫЙ Вячеслав Михайлович	6.08.1950	русский	ВВС		5.02.1986	

54	Старший лейтенант	ПЛОСКОНОС Игорь Николаевич	26.04.1959	украинец	СВ		15.11.1983	
55	Капитан	ПУГАЧЕВ Федор Иванович	27.03.1954	русский	СВ		23.01.1984	
56	Подполковник	РАЙЛЯН Александр Максимович	19.04.1954	молдава-нин	ВВС		25.02.1988	
57	Подполковник	РУБАН Петр Васильевич	11.06.1950	украинец	ВВС	16.01.1984	17.05.1984	Посмертно
58	Полковник	РУЦКОЙ Александр Владимирович	16.09.1947	русский	ВВС		8.12.1988	
59	Младший сержант	СЕНИЦКИЙ Виктор Павлович	10.01.1967	украинец	СВ		5.05.1988	
60	Генерал-майор	СЛЮСАРЬ Альберт Евдокимович	10.11.1939	русский	ВДВ		15.11.1983	
61	Маршал Советского Союза	СОКОЛОВ Сергей Леонидович	1.07.1911	русский	ГШ ВС		28.04.1980	
62	Майор	СОЛУЯНОВ Александр Петрович	9.12.1953	русский	ВДВ		23.11.1984	
63	Лейтенант	СОВБА Александр Иванович	19.07.1957	украинец	СВ	31.03.1980	11.11.1990	Посмертно

64	Капитан	ФИЛИПЧЕНКОВ Сергей Викторович	11.06.1960	русский	ВВС		31.07.1986	
65	Полковник	ХАУСТОВ Григорий Павлович	30.09.1939	русский	ВВС		16.06.1989	
66	Старший сержант	ЧЕПИК Николай Петрович	16.04.1960	белорус	ВДВ	29.02.1960	28.04.1980	Посмертно
67	Старший лейтенант	ЧЕРНОЖУКОВ Александр Викторович	18.06.1958	русский	СВ		3.03.1983	
68	Рядовой	ЧМУРОВ Игорь Владимирович	26.04.1966	русский	ВДВ		26.05.1986	
69	Лейтенант	ШАХВОРОСТОВ Андрей Евгеньевич	23.02.1963	русский	СВ	14.12.1985	31.07.1986	Посмертно
70	Старшина	ШИКОВ Юрий Алексеевич	10.1966	русский	СВ		28.09.1987	
71	Старший лейтенант	ШИРНИКОВ Николай Анатольевич	10.12.1953	русский	СВ	11.05.1980	21.10.1980	Посмертно
72	Майор	ЩЕРБАКОВ Василий Васильевич	20.04.1951	белорус	ВВС		28.04.1980	
73	Майор	ЮРАСОВ Олег Александрович	27.11.1954	русский	ВДВ	23.01.1989	10.04.1989	Посмертно

Annex 13

COMPOSITION OF THE DAILY DIET OF SOVIET Warriors in Afghanistan

№ п/п	Горный лет- ний с 1.4 по 1.10	Кол-во банок, упак.	Горный зим- ний с 1.10 по 1.4	Кол-во банок, упак.
1	Мясо-расти- тельные кон- сервы	2 б. по 100 г	Мясо-расти- тельные кон- сервы	2 б. по 100 г
2	Суп фрукто- вый	1 б. по 200 г	Суп концен- трат	1 б. по 250 г
3	Картошка с мясом	1 б. по 250 г	Картошка с мясом	1 б. по 250 г
4	Виноградный сок	1 б. по 50 г	—	
5	Печенье	1 пачка	Печенье	1 пачка
6	Витамин С	2 шт.	Витамин С	2 шт.
7	Сгущенное молоко	1 б. по 50 г	Сгущенное молоко	1 б. по 50 г
8	Чай	5 г	Чай	5 г
9	Конфета кара- мель	1 шт.	Конфета кара- мель	1 шт.
10	Сухой спирт	20 г	Сухой спирт	20 г
11	Спички охот- ничьи	20 шт.	Спички охот- ничьи	20 шт.
12	Шоколадка	1 шт.	Шоколадка	1 шт.
13	Сахар	50 г	Сахар	50 г
14	Галеты	1 пачка	Галеты	1 пачка

Capping hermetic in polyethylene.

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